Western RADIO Amateur

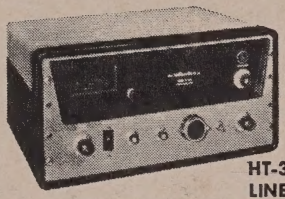
OCTOBER - NOVEMBER 1958

25c

PLEASE READ SPECIAL NOTICE ON PAGE 48

HALLICRAFTERS' SSB AND VHF CONTEST CONTINUED THROUGH NOVEMBER

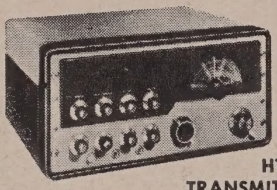
Visit our special Hallicrafters display for your free entry blank and demonstration. See, hear and operate the contest units. One of them can be yours.



HT-33A
LINEAR
KILOWATT AMPLIFIER

1st PRIZE
FPM-200

1st prize: Hallicrafters FPM-200, 200 watts PEP, SSB, completely transistorized excepting the final stage. Seperate transmitter and receiver complete with 12v power supply housed in the same compact box.



HT-32
TRANSMITTER

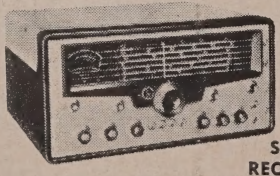
2nd prize: Hallicrafter HT-33A, Linear Final Amplifier 2 KW PEP.

SR-34
TRANSMITTER/RECEIVER

3rd prize: Hallicrafter HT-32, most accepted SSB transmitter on the market.

4th prize: Hallicrafter SR 34, two and six meter portable transceiver.

5th prize: Hallicrafter SX-101, super ham band receiver.



SX-101
RECEIVER

90 additional prizes: $100.00 merchandise credit on Hallicrafter equipment.

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- ★ INDUSTRY
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ANY CITIZEN CAN SECURE A LICENSE

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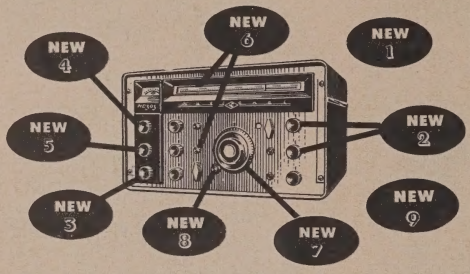

NEW NATIONAL NC-303

1 **NEW** front panel SSB selector with exclusive new "IF SHIFT" for instant sideband choice . . . eliminates retuning or detuning.

2 **NEW** "Q" Multiplier provides razor-sharp rejection notch (more than 60 db deep). May be tuned continuously across entire receiver passband. Separate notch frequency and notch depth controls.

3 **NEW** 5-position IF selector provides sharp, SSB-1, SSB-2, medium and broad selectivity. .5 Kc, 2 Kc, 4 Kc and 8 Kc bandwidths provide optimum selectivity for SSB, CW, phone, phone net and VHF plus sideband selection.

4 **NEW** dual noise limiters. Separate automatic noise limiters for AM. Separate double-ended manual limiter for CW and SSB.

5 **NEW** tone switch provides for attenuation of highs, lows, or both for maximum readability.

6 **NEW** exclusive WWV converter provision. No interference with dial calibration or frequency coverage. Accessory calibrator provides one microvolt sensitivity on 10 mc WWV frequency.

7 **NEW** hi-speed, 40-1 tuning dial with logging scale.

8 **NEW** fine tuning vernier dial drive provides super-precision for CW and SSB tuning.

9 **NEW** "Fast attack, slow release" AGC circuit. "Slow release" eliminates background noise during pauses in speech. "Fast attack" provides freedom from "thumps" or momentary overload by eliminating AGC lag.

ADDITIONAL FEATURES:
Dual conversion on all bands. Crystal controlled 2nd converter oscillator. Giant, slide-rule dial with ten dial scales covers 160 to 1½ meters, easily readable to 2 kc without interpolation up to 21.5 mc. Exclusive converter provision for 6, 2 and 1¼ meters. Separate linear detector for SSB, will not block with RF gain full open. Giant "S" meter. Provision for external control of RF gain automatically during transmitting periods. Muting provision for CW break-in operation. Calibration reset adjustable from front panel. Socket for plug-in crystal and WWV calibrator. Accessory socket for powering converters and future accessories. Fifteen tubes including rectifier.

SPECIFICATIONS

COVERAGE:

Band Designation and Length	
160 meters	1.8 to 2.0 mc.
80 meters	3.5 to 4.0 mc.
40 meters	7.0 to 7.3 mc.
20 meters	14.0 to 14.4 mc.
15 meters	21.0 to 21.5 mc.
11 meters	26.5 to 27.5 mc.
10 meters	28.0 to 29.7 mc.
6 meters	49.5 to 54.5 mc.*
2 meters	143.5 to 148.5 mc.*
1¼ meters	220 to 225 mc.*
WWV	10 mc.*

*Usable with Accessory Converter.

CONTROLS

RF Gain and AC ON/OFF; AF gain, Tone Control; AM-CW-SSB-ACC Switch; CW pitch; Main Tuning; Calibration Correct; Antenna Trimmer; Limiter; IF Selectivity; Band Switch; Phone-jack; Tuning Vernier; Calibrator OFF, CAL, WWV; Notch Frequency; Notch Depth; Standby-receive.

TUNING SYSTEM

Combination gear/pinch for smooth inertia tuning. Special vernier drive for superfine SSB tuning.

TUBE COMPLEMENT

RF Amplifier	6BZ6
1st Converter	6BA7
1st Oscillator	6AN8
2nd Converter	6BE6
"Q" Multiplier	12AT7
1st IF Amplifier	6BJ6
2nd IF Amplifier	6BJ6
ANL and Detector	6AL5
Product Detector	6BE6
Manual Noise Limiter	6BJ6
1st Audio and "S" Meter Amplifier	12AT7
Audio Output	6AQ5
Current Regulator	6H4-C
Voltage Regulator	OB2
Rectifier	5Y3GT

AUDIO SYSTEM

The audio amplifier uses a single 6AQ5 beam power tube. Front panel phone jack. Output impedance is 3.2 ohms.

SENSITIVITY

Less than 1.0 microvolts (with 70-ohm dummy antenna and 10db signal/noise ratio.)

SELECTIVITY

	Sharp	SSB-1	SSB-2	Medium	Broad
6db	0.4kc	2.0kc	2.8kc	3.5kc	8kc
60db	2kc	9kc	9kc	12kc	30kc

IMAGE REJECTION

BAND	Image Ratio
160	80 db
80	80 db
40	80 db
20	75 db
15	55 db
10	50 db
11	50 db

OTHER SPECIFICATIONS

ANTENNA INPUT: 50-300 ohms
SIZE: 15½" wide x 11⅞" high x 15" deep (13" rack out of cabinet)
FINISH: Attractive black and grey enamel
SHIPPING WEIGHT: (Legal) 64 lbs.

OPTIONAL ACCESSORIES:

NC-303-CC Converter Cabinet
NC-303CSA Converter for 6-meter band
NC-300CZ Converter for 2-meter band
NC-300CJ Converter for 1¼ meter band
NTS-2 speaker
XCO-200 Plug-in Crystal Calibrator
XCO-303 Deluxe Crystal/WWV Calibrator

FOR THE NAME BRANDS YOU KNOW IT'S

WESTERN RADIO T.V. SUPPLY CO.

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_____

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Lorin Lee W6NOO
Manager Amateur Division

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Hill W6TIX

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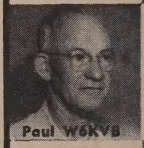
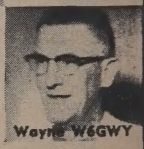
K6IPV



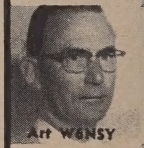
Paul W6KVB

Your Old Rig or Rcvr. Can Be Your Down Payment

We Invite You To Compare Anyone's Deal



Wayne W6GWY



Art W6NSY

We Need Your Old Gear for Novices, Technicians & Experimentors.

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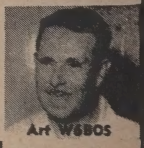
W6KM

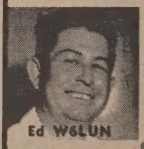
Kit K6BVV

SSB-DSB-AM CW-Mobile You Name It We've Got It

And We've Got One of The Largest Stocks of Component Parts Too.



Art W6BOS



Ed W6LUN

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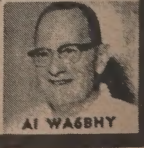

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THE EDITORS LOG

Art W. Brothers W6IQJ

IRAC AGAIN . . .

I was buttonholed at the San Diego Convention by several people who asked for an argument opposing reasoning that "the government needs our frequencies because we cause interference." Let me say that when a relatively few Amateur stations with less than 300 watts in the antenna, can disrupt and interfere with government electronics to the point where we aren't allowed to operate any more . . . **then I wonder what the Russians could do with equipment designed to do the job?** If we hams have such wonderful ECM (Electronic Counter Measure) equipment then the government should pay us for causing interference. We would perhaps teach the government how to work through interference. At best we might force them to build equipment less susceptable to interference.

Concerning the Hycon Eastern system of telemetery referred to in last month's Editorial. It seems that not only can 200 channels of data be sandwiched into 40 kc, but each channel is continuous information. Compare this with the present system of modulated oscillators and 2 channels for every 40 kc at best. This implies a 100 times more efficient use of frequencies if the government were forced to keep with the "state of the art." However, it's cheaper to blunder along, I guess.

AMATEUR POLICY

Evidently official policy of the majority of American Amateurs is to accept the loss of our bands over 200 mc. At the San Diego Convention, official amateur sources repeated what has previously appeared in print. In general they say that it is better for us to share these bands with the government than run the risk of outright loss with the big commercial companies getting the frequencies instead. In other words if the government has control they will make sure no commercial outfit gets to use them.

This is fine except — these same people — who make telemetry equipment, who contract to work for the government, who test missiles, who contract communications and what have you — can lease or otherwise operate in the bands with government permission a lot easier than they could if they had to go through FCC. (See August Editorial.) Also we are subject to being "eased out" due to interference, as has taken place in New Mexico. Also, with the creation of the new Pacific Coast Missile Test Range, attempts have been made to remove all Amateur operations from certain UHF bands. The main target was the 220 mc band. Figuring this area extends from central California to San Diego and inland from 50 miles to the Utah Salt Desert it doesn't take much figuring to realize quite a high density 220 mc Amateur operation would come to a grinding halt. (I am told **JETEC** stopped this move — more on them next month.)

In other words FCC's action in releasing the bands makes them more susceptable to occupancy than ever before. When FCC had authority we at least knew who to scream about. Now we have a pillow. Punch it all day and it's still the same ole pillow. If FCC controlled our frequencies, and the commercials got them or we are forced off, we would know who to talk to. If FCC wanted to keep the commercials out they could. Period. They just say 'no.' And the **military** would back them up because we are their national emergency reserve. But now that the FCC doesn't have the frequencies I suggest our frequencies are open to every person who has some political drag with the government.

I suggest our frequency allocation structure is sick. I further believe it is high time Congress ran a full scale investigation of IRAC. The President should be made aware of the situation as IRAC is his agency. It is time somebody restored FCC to the power they should have. It is up to each and every one of us to write our individual Congressmen and to the President and Vice President and urge him to look into the IRAC mess.

ARRL AND NATIONAL ELECTIONS

Who are you voting for?

MORE ON CITIZENS BAND

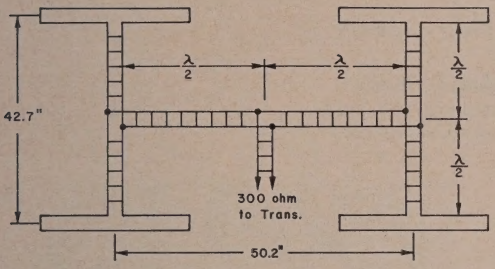
Brief rules for using the class D Citizens Band are as follows: (for complete information see last month's Editorial)

1) The call sign must be transmitted once every ten minutes.
2) No log is required.
3) Any person may operate a licensed station.
4) However persons under 18 years are not allowed to license a station in this service. Have your Mom or Dad take out a license.
5- Maximum power input is 5 watts on all channels, radiotelephone only.

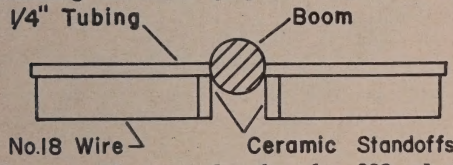
Continued on page 27

a QUAD STACKED ARRAY FOR 200 Mc

Robert D. Grimm, K6RNQ
2323 Ransom Avenue,
Oakland, California



Electrical ½ wavelength 300 ohm open line equals 23.90 inches. Stacking distances are center to center measurement
Stacking Details: (Dipole only shown)



Use no. 18 enamel wire for 300 ohm feed impedance

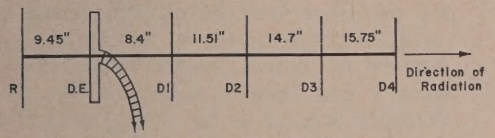


Table of Element Lengths

Reflector -	26.25 inches
Driven Element -	25.00 inches
Director 1 -	23.62 inches
Director 2 -	23.30 inches
Director 3 -	23.45 inches
Director 4 -	23.61 inches

After loading the 220 mc rig up to a kilowatt one cool evening last summer, and burning up the transmission line to the thirteen element long yagi in the process, the author made the marvelous deduction that he might have a standing wave problem. This was later checked, and found to be in the neighborhood of 10-1!

Now very few hams have the patience and equipment to properly tune a very long yagi for optimum forward gain; this being no simple task. At this point it was decided that a simpler antenna of equivalent characteristics would be highly desirable.

A quick check with George, W60KR, in Larkspur, gleaned us some data on a very interesting little six element yagi.

One of these little gems was put together quite easily using ¼ inch aluminum tubing, which was readily available at the local surplus outlet. A quick trip to the neighborhood hardware store netted us some nice ¾ inch aluminum tubing for the boom. After some fast calculations and a little work with the hand drill and hacksaw, there was a six element yagi. This was tried out, and the results were so gratifying I decided to put up a small array using four of these little gems in a QUAD STACK. This quad stacked array turned out so nicely that ye honorable VHF editor twisted my arm until I broke down and agreed to write this article (you can let go now Cooper).

The QUAD STACK netted 5db gain over a single six element yagi; well worth the extra effort.

These yagis are stacked at a distance of .85 wavelength vertically and one wavelength horizontally.

All elements are cut from ¼ inch aluminum tubing and the booms are made from ¾ inch tubing. The elements were force fitted* through the boom, and then the edges of the boom were punched down with a center punch, thereby locking the elements securely into place, without the use of any hardware.

One of the first things you will probably notice is the rather peculiar staggered length of the directors; this results in about one DB more forward gain than would be attainable with tapered directors, and is not a "goof" or typographical error.

The element lengths and spacing distances will be found in the accompanying chart. The design center frequency of the beam is 221 mc.

The phasing lines are made from ½ wavelength sections of transmission line, which is being used as an impedance repeater. In our case, we used Gonset Silver U Line, although just about any type of balanced transmission line could be used. (Provided it is of 300 ohms impedance, Ed.)

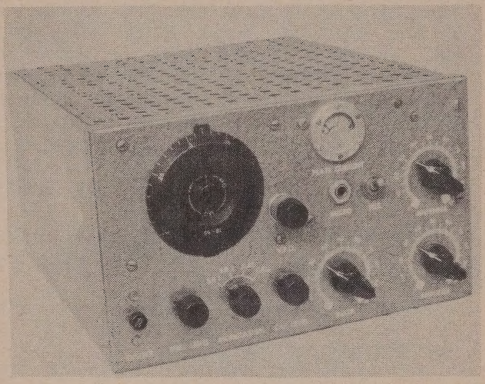
Continued on page 28

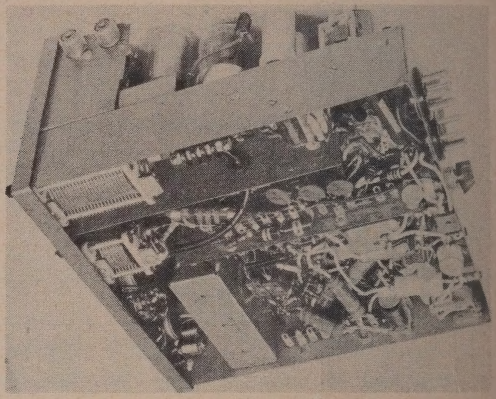
*Force fitted: Drill the hole in the boom for the element, just 1-64th larger than the element size. Carefully de-bur the hole (being extra careful not to ream the hole any larger) and 'force-seat' the element.

ANOTHER S. B. B. MOBILE

IN TWO PARTS

J. P. ISAACS, W6PZV
1300 California Avenue
Compton, California





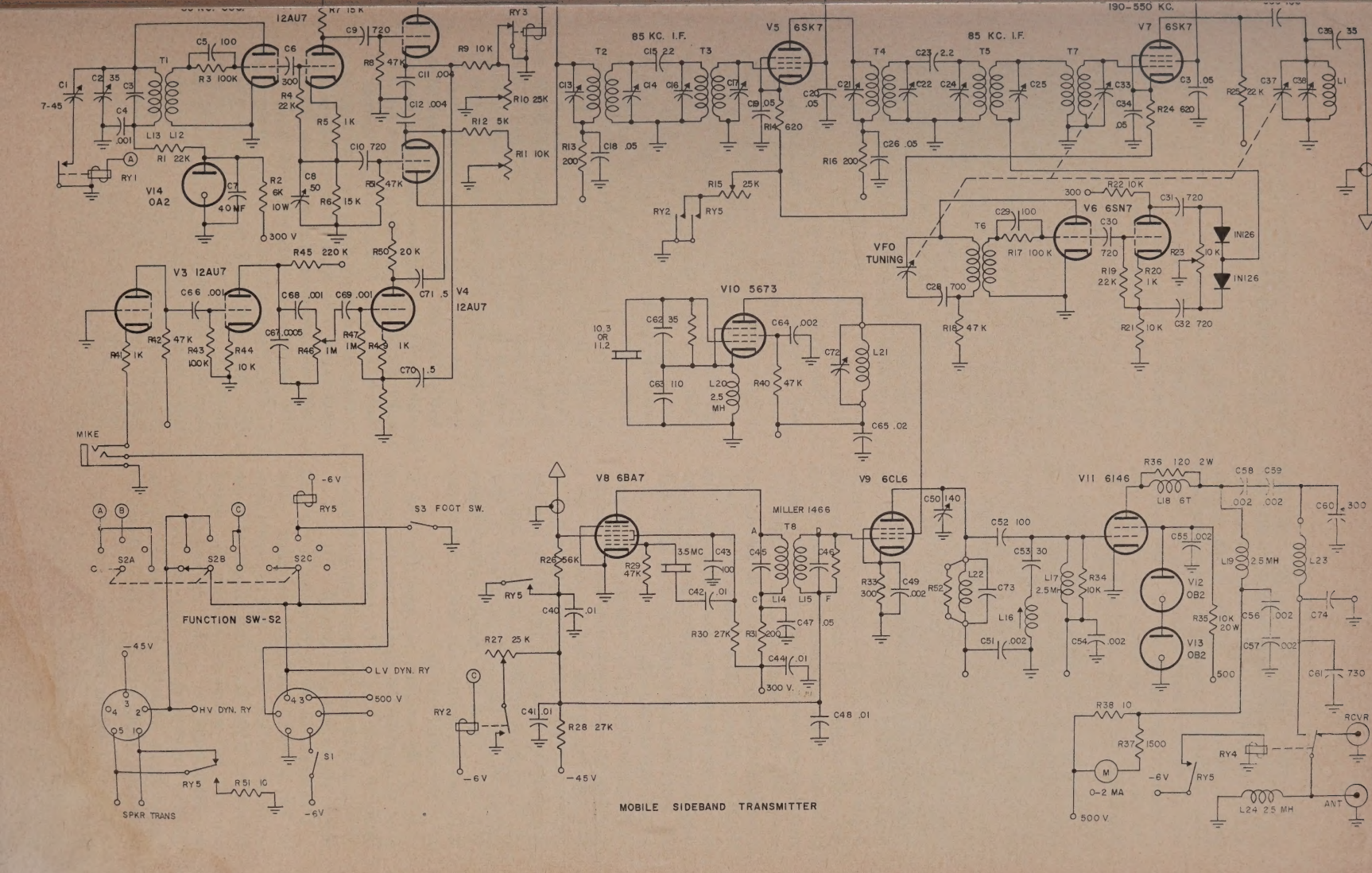
Every time I finish building a new rig, I swear that the next one will be "store bought". So far, I haven't been able to carry out this resolution, because, when the time comes, nobody seems to make just what I'm looking for. Could be I just like to "roll my own".

Ever since the ole S.S.B. bug bit, I have been toying with the idea of having a sideband rig in the car. The urge got too great, so finally the radio magazines came off the shelf and I looked back to see what ideas could be stolen. The big problem, as far as mobile operation was concerned, appeared to be the matter of stability. While kicking this around, I heard from some of the S.S.B. group on 75 meters that Buddy Alvaraz, W6DMN had worked out a sideband exciter using a BC453 Q 5er. I wrote a letter to him and received, courtesy of Jennings Radio Mfg. Corp., a complete diagram and dope sheet on the conversion. (1)

THE CIRCUIT

Basically, the idea was to use the receiver backwards and make it into an exciter. (2) The 85 kc. i-f transformers were used for the filter and the original mixer and oscillator converted the 85 kc. signal to the 300-500 kc. range, *tunable*. This was just what I had been looking for, so using W6DMN's circuit as the basis, I worked out the circuit shown.

Ieaving out some of the refinements for the moment, the circuit starts out by using the original 85 kc. b-f-o. coil and ½ of V1 to generate a signal at approximately 85 kc. This signal is then coupled into the second ½ of V1. A second 12AU7, V2 is used as a balanced modulator with the r-f signal being fed into the grids from V1. The audio portion consists of one 12AU7, V2, with the cathode of the first section being fed with a carbon microphone, plus ½ of a seconnd 12AU7 used as a phase inverter. The output of the phase inverter connects to the cathodes of the balanced modulator. The plates of the balanced modulator are tied in parallel and connected to the primary of T2. The modulator is balanced by alternately adjusting C8 and R11, until the 85 kc. carrier is nulled out and none appears in the plate circuit of V2.


12AU7
V14 0A2
V3 12AU7
V4 12AU7
85 KC. I.F.
V5 6SK7
85 KC. I.F.
V7 6SK7
190-550 KC.
V6 6SN7
VFO TUNING
V10 5673
V8 6BA7
V9 6CL6
MILLER 1466
V11 6146
V12 0B2
V13 0B2
MIKE
FUNCTION SW-S2
S3 FOOT SW.
HV DYN. RY
LV DYN. RY
500 V
SPKR TRANS
0-2 MA
ANT
MOBILE SIDEBAND TRANSMITTER

The filter consists of the three original 85 kc. i.f. transformers with a fourth one added for additional selectivity. The band pass is about 2.5 kc. at the 3 db. points. The oscillator is normally tuned to the high side of the pass band so that only the lower sideband is amplified by V5. By shifting the oscillator to the lower side of the pass band, the upper side band will be amplified.

The original conversion circuit used the 6K8 to convert the 85 kc. sideband signal to the 190-550 kc. range. When the tunable oscillator on the high side, a sum frequency of 360-720 kc. also appeared in the plate circuit of the 6K8. The two succeeding tuned circuits L1 and L3 provided sufficient selectivity to remove the sum frequency, but the variable oscillator frequency of 275-635 kc. being only 85 kc. higher than the desired signal was suppressed only slightly. In order to remove the oscillator frequency from the output, it was necessary to use a second balanced modulator. The 6K8 replaced with a 6SN7,V6. One half of this is connected to the orginal oscillator circuit. The output of the oscillator is used to drive a phase inverter. The output of the phase inverter and the 85 kc. i.f. amplifier are combined in a series balanced modulator. (3)

Potentiometer R23 provides the balance adjustment. Sufficient rejection of the carrier can be secured without the use of a variable capacitor connected across R21 in the cathode circuit of the phase inverter, so it has been omitted. In actual use, the output of the balanced modulator is 300-500 kc. Over this range, potentiometer R21 does not require any further adjustment after the initial setting.

V7 is the original r-f amplifier and is used to amplify the signal from the second balanced modulator. The cathode resistors R14 and R24 are connected to R15 which acts as the exciter gain control.

The output of V7 is connected to the grid of V8, a 6BA7 pentagrid converter. The oscillator portion of this tube is crystal controlled on 3500 kc. This mixes with the 300-500 kc. signal to produce an output on 3800-4000 kc. The difference frequency, 3000-3200 kc. and the oscillator frequency of 3500 kc. are removed by the succeeding tuned circuits. The sideband relationships are not altered in this stage.

V8 is coupled to V9, a 6CL6, through a broad band fixed tuned 4.5 Mc. television sound transformer. This provides reasonably flat response over the range of 3800 to 4000 kc. The exciter gain control R-15 is used to compensate for the drop off in output which occurs when tuning from one end of the band to the other. The 6CL6 is used as a straight Class A amplifier on the 75 meter band. Resistor R32 is connected across the grid circuit of V9 to keep everything under control. V9 is used as a mixer on 40 and 20 meters. On these bands, the plate of a 5763 crystal oscillator, V10, is directly connected to the screen of the 6CL6. On 75 meters, a dummy coil form is used and a jumper connects the 6CL6 screen to C65, and also to the B. This arrangement works very well, and the output on 40 and 20 meters is adequate to drive the 6146 final, V11.

The final amplifier is straightforward and presents no particular difficulties. Resistor R34 is used to load the grid circuit to improve the linearity and stability. The two voltage regulator tubes V12 and V13 provide a screen voltage of about 215 volts. This is a little higher than recommended for linear operation, but the results have been satisfactory. The output uses a pi network. On 75 meters, C74 is included in the plug-in coil form so as to secure enough capacitance output for the pi network. The bias system used on the last three tubes is similar to that employed in the Central Electronics 10B exciter. Here a battery is used to obtain a fixed voltage of -45 volts. The drain on the battery is very low and nothing else, simple that is, will do the job. Under standby conditions, with the high voltage on all stages, the -45 volts appears at the input grids of V8, V9, and V10. This holds the plate current of V11 at about 35 Ma and cuts off the other two stages. On transmit, a contact on Ry5 closes and removes the bias from V8 and V9, but does not remove it from V11.

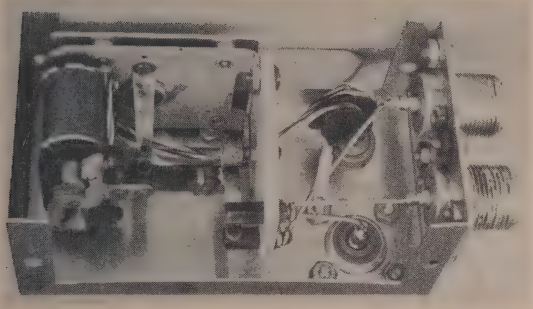
The control circuit is a little unusual in that relays are used to perform functions normally provided by ganged selector switches. The relays are small and fit into space which is usually wasted. This saves the trouble of trying to gang rotary switches and fit the circuit around the switch sections. The function selector controls the mode of operation. In position SB1, relay Ry1 remains deenergized so that the 85 kc.

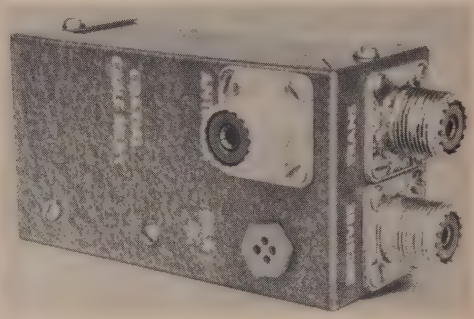
Continued on page 31

* (1) CQ Mobile Handbook, 2nd edition
* (2) March, 1953 CQ, Page 21
* (3) QST, September, 1952, Page 46

a Surplus Coax Switch

Donald L. Stoner, W6TNS
Senior Amateur Radio Engineer
P. O. Box 137
Ontario, California





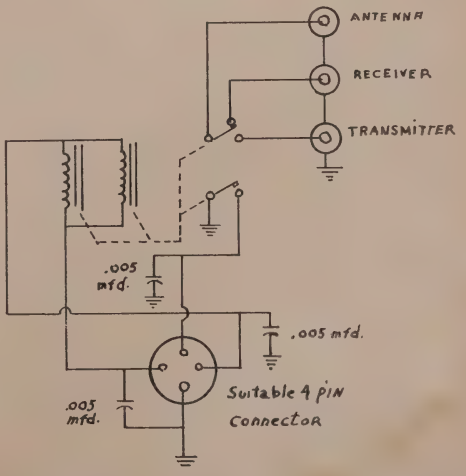
'Tis a rare treat indeed to find a true bargain in the surplus stores now-a-days! But just such an item has been kicking around for quite some time now, just waiting to be discovered by an inventive ham.

The subject at hand is the BC-442 Antenna Switching Relay, which can be found in almost any surplus store in the country. Arrow Sales, Inc. has it listed in their catalog (306RY4) with a price tag of $2.95. The BC-442 contains a thermo-couple and matching meter (calibrated in relative units), a 24 volt antenna change over relay, three ceramic binding posts, not to mention the case, sockets, etc.

The unit can be rebuilt into a handy-dandy mobile antenna change over relay, as shown in the accompanying photographs. The supposedly unusable 24 volt relay can be reworked for 12 or 6 volt operation.

The relay itself contains two series connected coils that are energized by a 24 volt source. The magnetic fields are aiding, and the yoke type armature moves the antenna contact with a long mica insulated arm. When energized, the arm also shorts out a set of contacts that originally disabled the receiver. For 12 volt operation, the two coils must be connected in parallel. Connect the two terminals furthest apart and the two terminals closest together. The terminals of either coil are then connected to 12 volts to energize the relay.

The relay is removed from the BC-442 box and mounted in the end of a 1½x2x4 LM chassis box (TF-774), after the terminals have been cleaned and the contacts polished. It was necessary to use a 1¼x2 inch bracket to mount the relay for the best utilization of space. The UHF style coax connectors were mounted on one end of the box, while the power connector was mounted along with the antenna connector on the top side of the box. All ungrounded terminals of the connector are by-passed



Continued on page 29

DX report

Dick Spenceley KV4AA
Box 403, St. Thomas
Virgin Islands

Vic, W1TYQ, received permision to be on from Vatican City, HV1CN, and planned to do plenty of cw between September 13th and 17th. As the receiver at HV1CN is an S-40, Vic will get a KWM-1 to take along and thereby add ssb to his activities. Frequencies on cw were 14050 and 21050 with ssb on 14310 and 21430. Operations were between 1500 and 2300 GMT plus 0600 GMT a couple of mornings. Operation during time broadcasting stations are on there is impossible. (Apparently Vic or some other op jumped the gun, as HV1CN came on cw, T8, on September 11th) QSL via ARI, Via San Tomaso 3, Milano, Italy.

Chatham Island became a 14mc reality when ZL3DA appeared on the air September 7th on ssb, 14306, 14313. He used sideband only but answered cw, am, and ssb calls on frequencies specified in his transmissions. He was operating there only a few days. QSL via ZL2GX.

Further chance at Chatham comes via ZL3VB. A 14mc rig was shipped to him on September 4th, from New Zealand, and he was due to be on the air near 14040 (vfo) by September 10th. QSL go via ZL2GX.

From the Kermadecs, Mike, ZL1-ABZ, hopes to dish out acceptable 14mc contacts for one week starting September 27th. He will be on 14320 am phone (answers cw). QSL via ZL2GX.

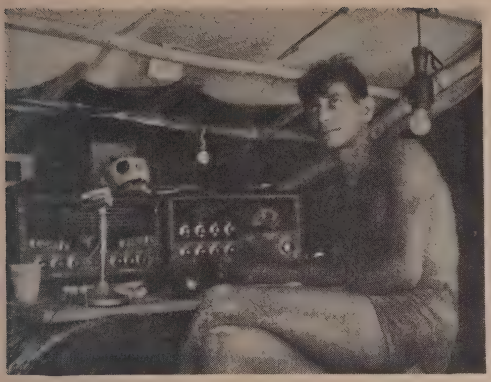
G3ESY informs us (via W6NNV) that 3A2BT will be on the air from Monaco for two weeks starting September 29th.

Very interesting was the appearance of two stations on Danger Island,

Yasme II, with quarantine flag flying pulls into St. Thomas dock after YV0AA-YV0AB trip

Danny waves goodbye as Yasme II sails for St. Kitts

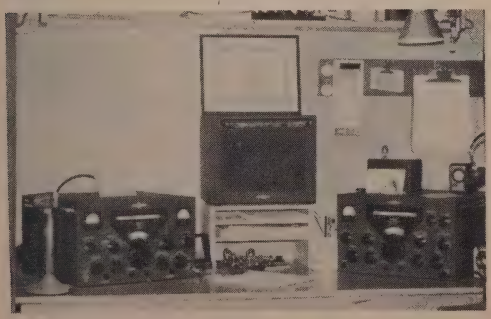
Yasme II arrives back in St. Thomas after Br. Virgin Island, VP2VB trip. Manning bow line is Joe, W2HQL, as Doc, W5PQA looks on and Danny handles the wheel



Danny at operating position at YV0AA-YV0AB.

Aboard Yasme in St. Thomas are (l to r) Jim Fry ex-HS1D, KV4AA, KP4WAQ and Danny.

VS1HU, R.N. Club Station at Changi, Singapore



Nent set up of W5PM,Houston, Texas

South Pacific, one signs W0PBW ZK1 and may be found on ssb, 21405, from 0200 GMT on. The other is KH 6MG ZK1 who seems to be working 28mc phone only. This is an IGY project which will be there a few weeks (They will observe the sun's eclipse in that area October 12th). The ZK1 suffix was arrived at between FCC and British authorities altho the island seems to be out of the ZK1 sphere and closer to the Tokelaus. Separate country status is a possibility.

Reg, FS7RT PJ2MC,spent August 25 to 31st on Montserrat making 2146 ssb contacts and plans a return trip there. Regarding Anguilla, Reg states that the quarentine had been lifted and then a couple of new cases of smallpox were discovered and the lid was clamped down again tighter than ever. Reg mentions, however, that a possibility exists that he can visit Dog Island, which belongs to Anguilla and is uninhabited and thus not under quarantine. We __QRX__.

The trip to Andaman-Nicobar Islands, by VS1JF & Co. may, or may not, come off during latter part of September. Reports say the Indian government just won't come through with VU5 license. Other reports (as we write) say that VS1JF leaves in a few days_____.

VS5BY, Br. North Borneo, has been heard on ssb using the rig sent to him in August by HS1A. 14308 kc.

FK8AS' trip to Wallis Island, FW8, seems off for September as he still awaits FW8 license.

HR0AA, 7002, has been reported many times and gives QTH as Ascaril Island, North of Honduras. He may be OK but is not a separate country.

TI9AC seems to be an out-and-out phoney, gang reporting wrong beam headings. Says QSL via KV4AA(don't you dare) and, later, via W2NSD. We wish this misguided character the worst of luck__. W7FZA received a QSL from him signed: Phineas X. Phoney!!

G3IOR reports an expedition to Scroby Island on Sunday, September 14th, weather permitting. They planned to be on from 1000 - 1700 GMT with the call of G3MSZ P on 3.5 and 7mcs and G3JGI P on 14, 21 &

28mcs. Scroby is outside English territorial waters in the North Sea but ARRL says 'no new country'. A GB prefix could have been obtained but it would have set the boys back two quid!!

The ZS6IF 7 trip to Swaziland materialized in September and they made 800 odd contacts in five days. ZS6IF was aided by ZS6APQ. Similar trip is planned to ZS8 and ZS9 land next year.

In a letter to W3PGB Razak, AP2M, expreses surprise at reports that ham radio has been banned in Pakistan. He says 'not so' and adds, Amateur radio has never been banned in Pakistan and never will be. There are only 34 ham stations here and only about 6 are active. Only two, AP2AD and myself are active on cw. (Our interest centers around East Pakistan where ham activity might result in a new country, separate from West Pakistan) QTH, AP2M, Razak Tejani, Box 4074, Karachi 2, West Pakistan.

VP1SD (via W6BAF) says he will be representing British Honduras on ssb quite soon. The Aaland Islands should be again heard starting October 25th. Calls: OH0NB and OH0 NC.

DL7AH and DL9PF plan to DX' pedite to Luxembourg, between November 26th and December 3rd signing LX1RK and LX1KA.

SM5CCE says SM5WN LA P has opened up from Spitzbergen, 14060, 0630 GMT, 2000 GMT, and will be there a year.

Many reports have been received regarding MP4DAA who claims to be on Das Island in the Persion Gulf.

Rundy, W3ZA 3W (Viet-Nam), is making efforts to get a Cambodian license (XU) luck!

AC4AX, Tibet, has two frequencies 14098 and 14160. His rig is small and antenna poor.

The Yasme II DX'pedition continues in high gear. Danny, after completing 2400 contacts at St. Kitts, as VP2KF, and upon hearing that hurricane Fifi was bearing down on us, pulled a fast dismantling job and set sail from the unprotected roadstead at Basseterre, St. Kitts, for the 50 mile trip to the safe haven of English Harbour, Antigua. Battling 12 foot seas, adverse winds and currents, and with a slight blue haze surrounding her (due to some overtime cussin'), Yasme pulled into Antigua at 3:30 p.m., September 6th. Fifi, happily veered and passed 100 miles to the north-east. Aided by VP-2AB and other friends, whom he had met there in 1955,Danny obtained the call VP2AY and came on the air September 9th. He will probably stay there until October 1st to effect repairs and painting of Yasme. As you may have gathered, the hurricane season is tricky down here (it ends October 25th) and we feel releived to see Yasme in a snug harbor for the time being. Next stop will be Montserrat or Dominica, or pending conditions, it might be decided to head all the way down to St. Vincent and work up the line.

Worthy of mention is a 'DX Stamp Service' inaugurated by Sax Ringler W2SAW, 446 Weaver Road, Webster N.Y. Using this service Joe Ham can obtain uncancelled stamps from any country desired at a considerable savings over the International Reply Coupon method. For instance a ZD8 stamp would cost you 34 cents while the necessary IRC's (6) would set you back 78 cents. The use of stamps have many features in their favor such as the DX station does not have to bother to go to the local P.O. to cash them. IRC's sometimes won't be accepted by local postmasters. My opinion of the IRC system is that it leaves a lot to be desired and are accepted by most post offices with little show of enthusiasm. I am flooded with USA IRC's, which I can't cash, and hereby offer to all and sundry at 8 cents per copy plus postage. If I get a Canadian IRC, do I get an 8 cent stamp? Not on your life, the PO gives me a 5 cent stamp as that covers postage to VE-land. All this extra moolah goes to the International Postal Union over the usual 5 cents they garner on each IRC. They must be loaded__! Write Sax and get his lists.

Vic, ex-ZD6BX, now signs VQ3HD

Continued on page 41

Loupin The Loop

By Corky W6ORS
1833 Vega St. Alhambra, Calif.

To those of you that missed the Southwestern District Convention there is only one thing I can say; you sure missed a good one. Loads of eyeball QSO's with old friends, Xmtr hunts as usual with mobile judging, QSL contest, QLF (which no one showed up for - what happened to K6DQA?) code speed contest and so on far into the night. Major Ed Schaad W3WDF Chief MARS Army was there along with everybody that is anybody. A swell banquet and feed, good technical talks, prizes galore and pretty girls. The staff of WRA was out in force with our Editor winning a NM-2 SB Analizer at the SSB breakfast. With little ado, he proceeded to donate it back to the committee and asked that the money be given instead to the Blind Technical Press who publish in Braille for the blind ops in Ham Radio. A gracious gesture. Space does not permit mentioning all recognized calls. There were over 1200 people at the Banquet. I did promise Marilyn K6DBR and Dr. Williams W7BIQ that I would put their calls in print so there too. Some of the Amateur Radio Sport Car Club potential members were K6KUP W6JBN es K6ULO driving their VW's, K6KUG in his Corvette, W6MTI and W6KBX in Hillmans, W6LMH in a VW and K6HZP in something I have forgotten, Oh yes, The Kombi's were represented by K6WGR and K6KRA. The Quarter Century Wireless Assn. met Friday night preceeding the official convention with some real top notch people present. Johnny Griggs, W6KW presided as chairman. Western Radio and TV stores really did a bang up job with their exibit at the Hotel, the only one of its type, I think. Lorin Lee, W6NOO and his gang were on the job all hours of the day and night. Lorin also donated half his store as prizes (I think) judging from the number of mentions of the store. Radio Products Sales was there in force as was Gonset, National, Collins and Hallicrafters. I know I have missed some of the manufacturers that had a display at the convention hall, but it sure was appreciated by all to see the latest in commercial equipment. Our own Don Stoner, W6TNS, put on a swell Transistor talk and demonstration, as did all the other orators. SSB had its day at the banquet with over 141 Donald Ducks of 40 meters grouped around one end of the hall. The DX breakfast had most of the better known country seekers attending and the traffic breakfast was visited by those dyed in the wool tfk handlers we all know. From here Henry Richter W6VZA took over with his IGY meeting and color slides of the recent conference in Moscow, Russia. Grand weather coupled with some grand hosts made a weekend well spent. A Hardy Well Done for the San Diego Council of Radio Clubs...Did you hear that Whitey W6HRA has a swimming pool? This is a fine time to find this out, after the summer is over...Sully K6ALL told me that he is looking for some steel armor plate. seems the neighbors are using his antenna rotator for target practice and darned if one of them didn't score a bullseye. You should move back to civilization Sully...Say, did you see the sweat rolling off Bill, K6BSW while working in the Gonset booth. Hope they were all pleased customers, Bill...New RTTY freq. is 147.75mc for check-ins (at least on CD). I for one was sorry to see that there wasn't a RTTY machine at the Convention to demonstrate this portion of our hobby. Likewise, there wasn't a room for the traffic men to get together and either handle some Convention tfk or just to shoot the bull of the big msg. that got away... K6GXK is starting a 220mc net to meet Mon, Wed es Fri at 2000 PST on 221.5mc. Got a QSL from Gene W6COZ re Xmas cards and subscriptions. Bet your life, Gene. We all buy cards for Christmas and I know that the fellas would rather buy from a fellow ham, than to just go anywhere. Just try us, hi...That's it for this issue (if we make it). Vy 73 es CUL

Corky--W6ORS

FROM LITTLE ACORNS, THE GREAT OAKS GROW

E. H. Marriner, W6BLZ
528 Colima Street
La Jolla, California

Here is a success story which had amateur radio for a beginning as viewed by Mr. Benton White, W4PL. This is the story as he told it.

Some time in 1931 or 1932 the XYL and I found ourselves in the course of an auto trip, spending the weekend in Cedar Rapids, Iowa. I had bought a "QST" en-route and leafing through it came across the first Collins Radio Ad that I remember seeing. (Fig. 1.)

That Sunday afternoon we set out to drive around the city a bit, and I decided to go by the Collins Radio Factory and see what it looked like. Idle curiosity entirely — it was Sunday afternoon and I had no idea of buying anything anyway.

The address on the ad brought me to a stop in front of a comfortable home on a shady residential street. "There must be some mistake", I said to my wife, but I'll step in and ask anyway. Going to the door a dark eyed, pleasant looking party answered the bell. Yes, this was Art Collins and this was where the Collins transmitters were made — would I like to see one? Yes, I would but just a minute while I go back to the car and tell the XYL that I would be inside for a little while.

As I again approached the front door I overheard — I could not help but overhear Mr. Collins excitedly calling over the land line to a Mr. Miller (who turned out to be be another ham associated with Mr. Collins) that he better call off that date and hurry over. 'I think we got a customer." It is interesting to speculate on just how big an order it would take to create that much excitement at the Collins plant today. This man Miller appeared almost at once, with a squeal of brakes from an old jalopy in

COLLINS CRYSTAL TRANSMITTERS

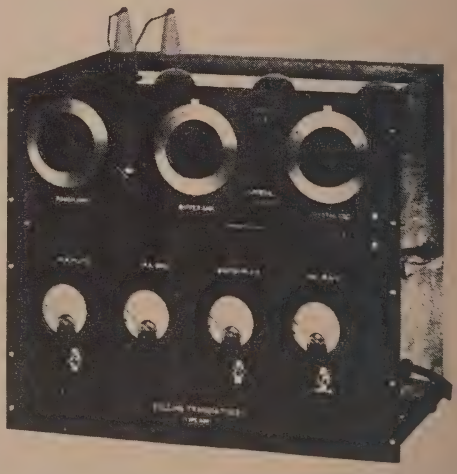
are fast becoming the popular choice of both the old-timer who has learned to appreciate the value of trouble-free, efficient performance on all bands — and also the beginner who wants to start right. ● Write at once for full details and photographs. Units from $33.95 up with carrier powers of 30 to 300 watts. Also a complete line of power supplies, modulator and input equipment, relay racks, quartz crystals, etc.

COLLINS RADIO TRANSMITTERS
CEDAR RAPIDS, IOWA

(Arthur A. Collins, W9CXX)

Possibly the first ad run by Collins in QST.

Collins Transmitter
TYPE 30W



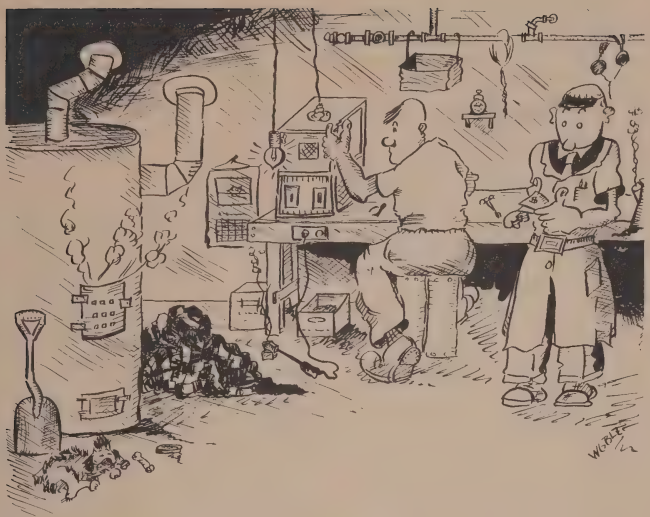
The 30W is designed to meet the requirements of the amateur who wants a modern crystal controlled transmitter ready to go on the air. It is a commercial type transmitter at a price the amateur usually pays for "just the parts."

Specifications:

Output: 30 Watts. *Frequency Range:* 20, 40, 80 and 160 meters. Coils for one band standard equipment. *Tubes:* 247 Oscillator, 247 Buffer, 510 Output Amp. *Power:* Self contained heavy duty unit. *Keying:* Grid-Block. *Meters:* Weston surface type. *Construction:* Engraved Formica panel. Aluminum and cadmium plated steel chassis. Highest quality material throughout.

(*Technical data on request*)

Another early Collins ad from QST



"I OFFERED TO BUY IT, EVEN IF IT WAS BUILT HIGH-HATTING THE FURNACE IN THE BASEMENT"

front of the house. (Either he lived right around the corner or he did quite a job of "hurrying".) We all went down into the basement which was the "factory", I had been hunting all afternoon.

Let me hasten to say that it was a nice place to work. There were benches around two sides on a nice smooth concrete floor, with good lighting. Any amateur who would put one of these early Collins transmitters into a basement shack need not have worried about the transmitter high-hatting the furance — it was built within arms length of one. There on the bench stood a nearly completed transmitter which was explained and examined. All being brother hams, we sat sociably on a stool while they fired up soldering irons and did a little work. I liked both of them and I liked the way they worked. I also liked what they were building. Mr. Collins made a good guess and they got a red hot customer..

I offered to buy if I could have the transmitter on the bench; take it right now and pack it into the car and carry it back to Chattanooga with me. They had already in mind selling it to another customer, but with me figuratively waving the cash under their noses, they decided it would be a shame to let good money get away. In short, I got this transmitter and the other party got the next. There is no serial number on it and is therefore purly a matter of memory, but I definitely understood at the time that was the second transmitter that the now great Collins Radio Company had made and sold. I realize that I could be mistaken; Art will have to check me on that, for no one could forsee what the name Collins would some day mean in the world of radio and electronics. Cashing some travelers checks, I carefully packed the rig into the car and drove off with it. That Over the years I replaced an electrolytic transmitter is still a going concern today. condenser with oils and the 47 tube became a 46 and the 510 a 901. The original coils were wound on bakelite forms and were eventually replaced with ceramic. Otherwise, the transmitter is as originally turned over to me just as good as the day it was built. It is now pensioned off as a low power emergency and field day rig, treasured for its sentimental value. That's how I remember it — the story of the Collins Radio Company started by two young fellows in a basement.

VHF Record

News of 6 & 2m with a roundup of the amateur 135-70-25-12-8-5-3-1.4 cm bands

Robert Cooper, 151 W. Reed St., San Jose

W6MMU-K6AXN EXTEND 1296 RECORD

As predicted in the September VHF Record, the recent record on 1296 megacycles set by Donald Goshay, W6MMU, and Russ Robertson, W6DQJ, was extended during September. On the morning of September 20, W6MMU and crew climbed to the top of Mt. Frazer, 35 miles NE of Santa Barbara, California. With them was the 1296 gear described in the August issue of Western Radio Amateur, consisting of a four foot dish, and 2C39A tripler from 432mc. delivering 6 watts to the 1296 antenna. One change is in order from the August insertion; W6MMU represents the Two Meter and Down Club, not the San Bernardino Microwave Society as erroneously reported in the August issue.

At the other end of the state, Mike Krivohlavek, K6AXN, and Bob Melvin. W6VSV climbed to the top of Mt. Diablo a 3800 foot elevation some 30 miles east of San Francisco. The schedules had been pre-arranged, but no luck was had on Saturday morning. 'We got going too late for the morning inversion', notes one of the expeditioners.

But Sunday was a different story. Liason work on two meters worked out well and contact on 1296 followed.

During the night W6MMU and crew had moved to Mt. Pinos, 5 miles to the north of Mt. Frazer. Signal reports exchanged over the 268 mile path were: K6AXN, 4-4-9 on Mt. Pinos, and W6MMU 4-4-9 on Mt. Diablo.

Active on 50 and 220mc, Bob Dobbin, K6 KFF has made many a fellow happy as K6KFF-ILF..7, Mt. Rose, Nevada. From Berkley (home QTH) Bob's gear is RTTY conscious, and he should make a big dent in the band this fall on 50mc RTTY, SB, and AM., shoving a pair of 4X250B's to one KW input.

LOW ENDING:

Much has been written in recent years of the low frequency DX chasing habit (20 meters in particular) term tail ending. I wish to coin a similar phrase-one which I hope will never gain wide useage. Never . . . because it is with fond hopes that perhaps the action this phrase describes will die out before reaching monsterous proportions. The phrase? LOW ENDING.

Listen my laddies and you shall hear—the happiest fact—DX season t'is here. And with this bit of rhyme(??), and hours of happy 50 megacycle operating just now beginning, we are reminded of a rather ungentlemanly operating procedure which had just begun to catch a foothold during the close of the wild 1957-8 season of F2 openings. A procedure which could (and probably will, despite our editorializing attempts) reach "disease proportions" this year, provided all 50 megacycle men reading this immediately assume that what is to be said has absolutely nothing to do with **me**, and pass this bit of written matter off with a grain of salt.

VHF men are normally thought of as the most courteous and thoughtful of the Ham Radio clan. Why? Simply because your coverage area is normally limited to a radius of 100 miles, or so, and those fellows whom you QSO on a regular basis are your neighbors. You know them personally, talk with them frequently, and share with them the same DX fate. Why then go out of your way during a DX session to kick a friend in the teeth? Can the spirit of competition

K6MBL W6SDE W6OYJ Extend 3500mc Work

Operating from a small knoll near Corona, California, on September 28, W6SDE established communications with K6MBL at Pomona, California. The 16 mile path is believed to be the greatest path covered on our new micro wave assignment, 3500-3700mc. By no means line of sight, the Chino Hills intercept the path in several points. W6OYJ hearing of the W6SDE to K6MBL work, hauled his version of the 'Polaplexer' set-up to the same knoll holding W6SDE and he also established communication with K6MBL.

A later attempt that day between the home QTH of W6SDE and home QTH of K6MBL failed, probably due to the lower elevation encountered by W6SDE at his end.

However, contact was established over the 14 mile path of W6SDE (Corona) and W6VIX (Ontario), for what is believed to be the first ham micro wave communication from one home QTH to another, proving that mountain tops are not necessarily synonimous with micro wave work.

All stations participating used versions of the 'Polaplexer', and 30mc IF strips, for duplexing. Signal sources were 726A Klystrons modified to hit the 3500mc band. K6MBL uses a four foot parabola W6VIX and W6SDE use 21 inchers, and W6OYJ directs his RF with a 29 inch dish.

50 mc DX Season Gets Early Start

The earliest recorded date for a F2 breakthrough in western 50mc history occured on September 16, as eagle eye Grimm, K6RNQ caught 3 minutes of 'QRZeta' and 'CQ DX USA' from LU9MA at 1200 PDST. Bob had been watching the MUF rise for several weeks, and was making periodic 'dry runs' with his new kilowatt cw rig.

With renewed vigor, Bob began his winter time vigil of rising at 6 a.m. and spending every available minute checking the band. His efforts were further rewarded when he ran down the cw signal of ZL2DS at 1330 PDST on September 22. ZL2DS was in the process of exchanging basic information with someone..now the question is, who?

With such results already, this year can be nothing but tremendous!

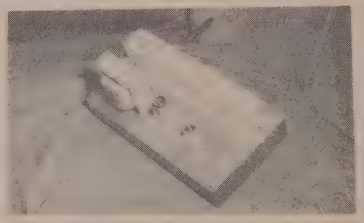
during an opening to Africa be so great that you are willing to risk the lifelong friendship of a fellow amateur (or perhaps of a whole clan of fellow hams) just to make it impossible for your "friends" to work the DX station coming through?

Who me? If this applies to you, than you know exactly who we have reference to. If you have ever VFO'ed on top of a DX station to break into a long winded "CQ DX," we mean you. If you have ever zeroed on top of a DX station, to call him, when he is obviously working stations considerably away from his frequency, we mean you. If you are a phone man, with no designs on CW, and have consequently moved in close to a weak DX station using CW, a station which you know CW men in your area are trying to copy, we mean you. In short, if you are the follow who comes on with the purposeful intent on ruining someone else's chances of working a DX station,

WE MEAN YOU!

It's no secret that a local station running 15 watts can cover up a whole segment of the band on the low end; a segment potentially filled with several weak, fading DX stations. No one's receiver is able to cope with strong signals immediately adjacent to weak signals which are barely above the noise level. Thus you, whether you run a kilowatt, or ten watts, have great potential, when it comes to ruining the fun and operating pleasure of your fellow six meter man. It all depends on where you put that power . . . out in the clear, or on top of a DX station.

We don't advocate getting off the air so that Joe Ham across town can work that LU on the low end. Get in there and join with him in calling the DX. **But**, use your receiver and ear a little more, and the transmitter a little less. When everyone is chasing TG9JW on the low end, and your chances are pretty slim of hooking him, don't spend the whole opening calling him,



Anyone for a noise figure of 3db on 432mc? Dick Erath, W6SUE was, and went all the way to obtain it. A 416B mounts in the silver plated trough line, while the mixer is a super effecient 1N21C. Look for an article on this one soon.

This used to be one of the finest two meter arrays in the world until it caught a 60 mph windstorm. Tommy, KH6UK went to great pains with this array which tilted as well as rotated. Designed for moon bounce, it worked just as well with tropospheric ducting. Here's our wish that it makes it back on two soon.

or CQ DX. Be smart, look up the band aways. There is very likely to be other DX coming through also, and if you are playing it sly, and tuning for it while the rest of your cohorts are making with the mike chasing the obvious DX, you've got the jump on them. Why? Because he who hears the DX first is most likely to work it first.

Or if you are a ragchewing man, why sit on 50.018 and call W1's? W1's go way up the band; as high as 50.500 on a good day (what . . . you never tune that high?), and EI2W has a rock on 50.018. You may not hear him, but perhaps the fellow across town can. Now if your buddy was on top of EI2W, and you were hearing him, you would want your buddy to move, would you not? OK . . . reciprocate! It is just as simple as that.

Let's instigate a program of super courtesy on 50 megs this fall. This will probably be our last chance at many DX areas for at least ten years, maybe forever, as far as most of us are concerned. Think how much a contact with Europe would mean to you, a west coast 50 meg man. OK, now think how much a contact with a KH6 means to a W1 or W2. Get the idea? It's really very simple when you think about it. The fellow across town will be with you for many years to come, and you are going to have to share the band with him. You don't want him carrying a grudge against you for the next ten years, just because you decided to sit on top of that station he needed for WAC, do you?

SOUTHERN CAL-NEVADA ON 220 MEGS:

Although no prior notice was received by this column, an apparent expedition to Mt. Potosi, Nevada, near Las Vegas, on Saturday, August 23 resulted in the first 220 meg. contacts between Nevada and Southern California, to our knoweldge. W6WRE/7, running 20 watts input to an 832A, and vertical antenna array, first made contact with K6GKK (Long Beach) and K6VLM, Rivera at 1630 hours. pdst. These stations were worked until 2000 hours. Later in the evening, W6MMU, W6NLZ, K6GXT, K6HHA, K6GYF and K6VRE were worked with Q5 signals. These distances (as great as 222 miles) were covered with the greatest power input being used 85 watts (at K6GKX).

As the accompanying note from Jay Bush, K6OPD mentions, "if this distance can be worked by stations running average power, antennas and receiving equipment, there is no reason why contacts cannot be made from Southern California to your area." Jay also mentions that if the stations in the Bay area, and other population centers some distance from Los Angeles are essentially horizontally polorized (that they are Jay) but are willing to conduct test schedules, LA area stations will be glad to erect horizontal arrays.

The "Inter County" net was instigated on September 29, meeting on Monday, Wednesday, and Friday nights at 2000 hours, on 221.9 mc. K6GKX, Long Beach, is NCS.

Stations wishing to schedule Los Angeles area stations should contact K6OPD, P. O. Box 1152, Lancaster, California, listing your Call, location, Frequency, power, antenna polorization and schedule times most convenient. Jay is acting as a clearing house for all such schedules and will see that your request gets top priority.

50 MEGACYCLE NEWS:

W4GJO (Good Juicy Oranges) of Sarasota, Florida, fame tells us that he heard his first auroral signal on six meters since being W1GJO, some years ago. On the evening of September 4, Grid intercepted the signal of W4IKK, hearing the Tennessee station for some time into the evening hours. Interesting to note that Sporadic E skip was observed the following morning, with E skip as short as Sarasota to Atlanta at times. F2 wise, Grid mentions that the MUF seemed to be rising even faster than in 1957 at his location, especially on trans Atlantic paths, and Trans Equator paths. Grid also notes that Ike, VE7AQQ is observing similar things from his Northern British Columbia location. So it looks like a good year ahead!

ATOMIC EXPLOSION PLUS HIGH ALTITUDE EQUALS 63 MEGS!

A rather strange formula, no? Well, ZK1BS (Cook Island, South Pacific) thinks not. During the American nuclear testing series last August, he was keeping especially close watch on the MUF from his location to Hawaii, and other Pacific areas. On the morning of August 14 (0130 PST) he heard signals from Hawaii as high as 63 megacycles (Channel 3 television station), immediately following the announced high altitude explosion of the 13th (our time). As luck would have it, no KH6 six meter stations could be raised. We are indebted to W6BUR for this bit of news.

GUAM ON SIX:

Jack, K6VXI is to be thanked by his fellow six meter men. He succeeded in talking a personal friend on the way to Guam into purchasing a 6N2, and Filter King converter, for the expressed purpose of putting KG6 on Six this fall. So fellows, all that comes from the Pacific this fall may not be KH6 . . . look for W9VHM/KG6 when the band is hot to that area.

NEW MEXICO ON SIX:

Three cheers for Frank Greene, K5IQL, of Roswell, New Mexico. To the uninitiated. K5IQL has done more to put New Mexico on the six meter map than any other station in the history of six meters. In Frank's own words, "After two years and nearly 2000 QSL's to "First New Mexico" (sometimes even first DX), I have gone to hiding behind the bushes, and looking for the other 8 "firsts" I need for WAS. Frank notes that he is gradually getting some help on the band, with W5VC; K9LFS is on at Las Cruces, and K2CIQ is getting set up at Soccorro.

Other news which Frank passes along to WRA readers. Rusty. XE2PY has been working some TE scatter with Argentine, and Chile lately, mostly around 2000 CST. (Ed's note: Watch for South American's this fall, in the evening, especially following an Es opening to Texas and New Mexico.)

Continued on page 34

W NEWS

By

Howard S. Pyle "YB" - W7OE

3434 74th Ave. S. E.
Mercer Island, Washington

This month is going to be a bit tough on an old 'news hound' who hasn't been able to get 'out and around' to pick up much of anything to write about. Same on the air . . . the usual summer slump until just after Labor Day when the gang began drifting back, firing up the rig and getting ready for a nice fall and winter hamfest. Nets have been only skeleton in attendance also. My Doc has insisted that I take it real easy, just a little light activity for a few hours a day ,and only short and infrequent trips to town. I must say his advice has paid off . . . really a noticeable improvement in the way I've been feeling lately. My retirement papers are going through processing so it shouldn't be long now.

The major issue up here right now is the coming election for Director and Vice-Director of ARRL for the next two years. I DO hope the gang pick a pair that will be aggressive and get some action in the Division. Actually, I have no idea who has been nominated and I haven't found anyone else who knows either!

If you W7's are going to sit back and DO nothing, I cannot see where you have any right to complain. As QST points out, in their editorial in the August issue, "Basically, YOU decide policy . . . etc." If you, as an amateur and a League member DON'T take a hand in choosing competent Directors and Vice-Directors to carry out the wishes of the majority, you're going to have to take what you get, like it or not! Let's hope that SOME section in this division has had gumption enough to put up a couple of REAL desirable candidates for these offices.

We are most sorry to report that Harry Ubil, W7OHW, Historian for the Northwest Chapter of the Quarter Century Wireless Association, has had another siege with the surgeons' knife . . . pretty much major this time and we are all hoping that after his recuperative period, it will result in restoring his health permanently.

I was most pleasantly surprised the other day to receive "Volume 1, Number 1" of a dignified little eight page bulletin just introduced as a 'monthly' by the Seattle Section of the Institute of Radio Engineers. You in the Seattle area who are members of this leading professional society have also received a copy. It is issued gratis to members, is nicely printed on quality paper, and well put together. The current chapter Chairman, W. T. Harrold is to be congratulated in inaugurating this little pamphlet as is the very evidently competent Editor, Robert Hove.

Chuck Emigh, K7ER, who has served for several years and accomplished a most splendid job as Chairman of the Northwest Chapter of the Quarter Century Wireless Association, has requested relief from that position, due to increased business pressure. The membership unanimously regrets the necessity of Chuck to drop this activity and are having considerable difficulty in choosing a replacement for him who can come anywhere near equaling the competence which Chuck has continuously demonstrated. He built the chapter up, for example, from a mere handful when organized, to something over the 200 mark, in a few short years. The entire membership will, I know, join me in saynig "Sincere thanks, Chuck, for a job superbly done."

Another pleasant surprise! The mail just brought me a most attractive green ribbon, silver lettered "H A W K", together with an attached identification card, the combination to be worn on the lapel at ham gatherings. "H A W K" is the sobriquet for "HOOSIER AMATEUR WOMAN'S KLUB" of Indiana and I have the honor of being the only MALE member! Honorary, of course, as it would be a bit difficult for me to be an active participant! This was my reward for designing their club emblem, a hawk in flight, bearing a lightning streak in his claws. As one of the requirements for HAWK membership is to belong to the Young Ladies Radio League (YLRL—National), I'm wondering if I'm going to have to buy a new girdle and try to chisel my way into their ranks! Hi! See you when I get my 'permanent'! "73"

THE LIFE AND DEATH OF PAPPY'S CHICKEN

J. M. KANE,
19980 Gist Rd.
Los Gatos, Calif.

It wasn't that Pappy needed the chicken for a pet. Actually, W 6 Baker Mike didn't want a pet. Nevertheless, arrangements were made one rainy morning without his knowledge while he was driving to see Fred, W6VBQ, at his store in Berkeley. There was no great rush. He was taking 'er easy in his town car, the Nash. That's how he happened to see, lying in the muddy drainage ditch along side the road, the Plymouth Rock Pullet, waiting for him.

He knew the thing was alive because he had seen her spread wet, ineffectual wings, trying to get 'on the step', to get air-borne and get out of the mud. She was stuck there as surely as if she were in a mouse trap. Her wing feathers were too wet, and too few to pull her out.

The pullet didn't know Pappy would be along to take her from the fast rising drainage ditch. But she knew for sure she didn't like life in the crowded chicken cage where her master was hauling herself and her witless playmates to market. The larger pullets were crowding and pushing hell out of her. They had her small body half way through the slats most of the time. There was nothing to do but escape. Escape! Yes, that was it. But how?

While Miss Pullet was deciding how, her master did it for her when he made a short turn too fast. The larger pullets, suddenly thrown against the slats, pushed Miss Pullet's little body the rest of the way out of the cage.

For the first time in her tender young life, she was free! Now she had an opportunity to try out her wings as she glided from the top of the fast moving truck to the drainage ditch. Her wings were so immature she landed in the mudy water with a splash, and got soaked and too heavy to fly. She had been trying to get out ever since.

Remember, 6 Baker Mike needed a pet like he needed ten DB's of signal on the unwanted sideband of his new SSB IOOF, parked on the low end of forty. But what stout hearted man could pass a drowning chick?

Not our Pappy!

He stopped the car and backed 'er down, alongside the waving chirping, half-drowned chick. Carefully, he got out and walked to the unfortunate critter like he used to when preying upon other chicken coops years ago in the nearby neighborhood. He didn't want to scare her, so he made a soft, leisurely approach from the lee side. He reached out precisely, and within a few breathless moments, Miss Pullet had a new home.

Aware of the penalty for being caught in Yankee Territory with a live chicken, Pappy hid her under his coat until he got in the car. Then, with great concern, he put her on the floor in the rear and covered her up with an old coat. The whole thing was over within five minutes.

Fred wasn't told of the incident. Maybe 6 BM had forgotten it, like he says. But the fellows who had turkey dinner with him in his favorite spot across from 6 VBQ's store in Berkeley, say they remember Pappy putting a couple crackers left over from soup, into his pocket as he left the table. Maybe he didn't know wet chickens like crackers. Maybe it was just a coincidence, he says.

Pullet life inside Papy's trailer, parked in the lush pastures near Evergreen outside San Jose, was chicken heaven suddenly realized. She had never had it so good! She grew fat on warm left-overs. But imagine her master's surprise when he learned that the cluckings he had been hearing just recently were followed by a nice warm pullet egg. Verily, she was rewarding him after her fashion.

The process was repeated so often there was a surplus of eggs. He was proud to give some to Mrs. W6MHP.

Try to image how life had changed inside the trailer. No longer necessary to sweep it out anymore, so cooperative was Miss Pullet. But no more coming home late for Pappy. The chick had to be housed early against prowling animals, if not against a hungry neighbor.

As Miss Pullet grew into Mrs. Hen, she learned to stay out nights, and to sleep

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E. H. Marriner, W6BLZ
528 Colima Street
La Jolla, California

San Diego Zero Beat

Well here I am after a vacation trip to Victoria, B. C. Now I know how Lewis and Clark must have felt after reaching the mouth of the Columbia River. It was a grind all the way, car trouble, full motel and hauling suit cases in from the car every night. Then there is Daylight Savings Time, some cities use it and some don't ferry boats use it and some don't. In fact up in the North West they just gave up and use two clocks, one for regular time and one for DLST. So there it is, I had good intentions of looking up a lot of you fellows but never realized how things had changed with the freeways by-passing towns.

A lot of the old timers around Santa Maria, Santa Barbara area will be glad to know I was able to contact ex-W6-AKC, Al Phelps on the telephone. Al is living in Canada working on an island just North of Victoria and is off the air, he says for good. He runs the generator plant for Capt. Lewis of the yacht Stranger which ties up the island. This you may recall is the ship which gave us a lot of DX contacts back in the 30's cruising around the world, when ex W6CUS and W6BAG were aboard with W6AKC

I have a note here that W6CDF got back from his trip to Bikini without getting blown up by an atom bomb. The only thing that got blown up sez he, was his stomach which took a terrible punishment from so many New York cut steaks and ice cream. Cecil said some of the gang would eat 4 or 5 steaks at one sitting. I asked what there was on Parry Island where he was located. His answer: Lots of people, one female but she had four legs, no palm trees, just grass huts and an amateur station. Seems KX6CD was moved out in it's entirety from the Pentagon all Hallicrafters gear. KX6BQ a Collins KWS-1 with a Rhombic and 90 ft. poles. W6CDF said everytime anyone went out to the shack and turned on a light the shack filled up in a hurry with people wanting a phone patch home. If the operator at the time doesn't fill out a QSL card the chances of getting one are slim because there are dozens of amateurs running the equpment. Cecil says he is ready to go back anytime if they will still let him sit at the same mess table where all he has to do is raise his hand for the boy to bring more steaks and ice cream.

Any of you fellows want to know about Drake receivers? Here's the local gang which are proud owners of the little devils. I present the Drake receiver club: W6CDF, OVY, BLZ, ZFU, SVB, AOU, VRW a few tha

Continued on page 32

Antennas

Judge WØLMB/7
202 S. 124th
Seattle, Washington

VELOCITY FACTOR OF COAX

In the July issue I described a method of checking the impedance of coax. This article describes a method of checking the Velocity Factor (V.F.) of coax or any feedline. The formula for a **half wave** of coax is $Ft = \frac{(492)\ (VF)}{Freq.}$ Here we know length, the frequency and our 492 constant. To solve for the V.F. the formula can be rewritten as follows: $VF = \frac{(Feet)\ (Freq.)}{492}$. The length of the coax can be measured with a steel tape. The frequency that the test is to be conducted at can be measured on an accurate receiver such as a Collins or use or borrow a BC221 frequency meter. The grid dip is not calibrated close enough for this measurement. When the grid dip is loaded such as it is when you drive an antenna scope it will read a couple of hundred Kc lower anyhow. You must measure the grid dip frequency externally.

Select a piece of coax preferably resonant around 3.6 or 7.1 Mc. The point being is try to have it so that all its harmonics will be in the ham bands. If the coax you want to measure is a random length, you will probably need an all-band receiver and a BC221. Start at the frequency where the coax is a quarter wave. Since the V.F. will be very close to .66 the approximate frequency at which the coax is a quarter wave can be calculated from Freq. $\frac{(492)\ (.66)}{(2)\ feet}$. The "2" changes the formula from a half wave to a quarter wave formula. Now set the antenna scope at zero ohms and connect coax with it unshorted at the far end. An infinite load will reflect back a dead short or zero ohms at the antenna scope. Set grid dip at the approximate frequency determined by the previous formula and sweep it through its range plus or minus a megacycle or two. A dip should ge observed on the antenna scope with dial set zero ohms. Carefully and I mean carefully adjust grid dip frequency for dip on antenna scope. Have equipment solidly placed on the floor or a table being careful not to put any weight on the grid dip case with your fingers. Now find grid dip signal on the receiver and measure with BC221 and record. To make sure you have the grid dip set exactly right, turn the volume of the receiver down and retune grid dip for dip on antenna scope and re-measure signal on receiver. They should be right on or a Kc or two apart. It's best to take several readings and take the average. It requires a steady sensitive hand on the grid dip. All you "safe crackers" ought to be a whiz at this. If you leave the receiver volume turned up for each check, you'll be influenced by hearing the grid dip signal in the receiver and 9 times out of ten you'll stop at the same frequency. You can't resist—believe me. Since you now have the frequency you can solve for the V.P. If you have a slide rule it goes fast. VP $= \frac{(Feet)(2)(Freq.)}{492}$ (1st quarter wave).

Now to double check this new found V.P. the same thing is done at a frequency at which the coax is 3 quarter waves long. All you do is simply increase frequency on the grid dip until the antenna scope again dips. This will be at a frequency three times the original 3 f_1. Make 5 or 6 measurements and average them out. If the new frequency is exactly 3 times the frequency at which the coax was a quarter wave, it won't be necessary to recalculate the V.P. However. if it is different the new V.P. can be found for 3 quarters wavelengths from VP $= \frac{(Feet)(2)(Freq.)}{(3)\ (492)}$

Next make the check at a frequency where the coax is 5 quarter waves long (5 f_1). If the new found frequency is exactly 5 times the original (f_1) it means you may have made a mistake on the previous measurement. (if that frequency was other than 3f_1) If it is other than 5 times the original frequency recalculate VP by merely changing the 3 to a 5 in the formula and, of course. the new frequency. You can see now how important the accuracy of the first measurement is. If the new frequencies are consistently other than 3 or 5 times f_1 they should form a pattern on one side or the other. When you get up to the 11th or 13th harmonic the adjusttment of the grid dip gets a little sensitive. You may have to give up smoking for a week or so. (hi). Now after you have calculated the VP for all the harmonics up to the 13th or so. let's do it now for half wave multiples. F_1 for a half wave of coax should equal 2f_1. Short

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Around The Bay

Don C. Davis K6TKL
2335 Seymore Pl.
Hayward, California

Well, looks like summer's over and all the picnics and hamfests have been well attended and all the prizes won.. Your's truly attended just about everything__only thing I won was a five dollar merchandise award.. oh well.. that's the breaks.

Among the more notable affairs, was of course the Fresno doings, and close behind, the Hayward Auctionfest. They came out with just a little over expenses, but man the bargains and of all things, too many prizes. Had to have another drawing at their last meeting to give away the prizes that got lost in the shuffle. Those that had tickets and were not present will be mailed their prizes.. if they won?

The PAARA-SCARS picnic was a huge success, they ran out of tickets.. my gawsh how ya gonna know? Last Sunday was the Quement gang and their free hot cake breakfast, lots of cakes and coffee, real great outdoor area where you can really work up an appetite. Only seven for me, Doug, K6KEV made four trips to the kitchen,poor fellow starved for a week before, on a diet you know.. hi.

Nuff on summer activities..wat about getting the mobile Sunday breakfasts started again? Used to be a big gang show up, let me know and we'll sure get the word out.

Incidentally, a lot of you people in the East Bay area have had change of addresses, be sure and notify your local club paper, and of course the W.R.A. All club papers please note mine, it is 1075 Seymore Pl. Hayward Calif. Sure would like to get a copy of all the Bay area club papers every month.. How about all you editors?

Well that's about it for this month, we are very very late so better get this in the mail.

Some of the XYL's who helped sell hot dogs. Being served is Carlin Kinsey. From left is my XYL, Vernie, Maxine Wafford, my MIL (mother in law), and Betty Brunner.

The auction. Don Hineman auctioneer.

Turn out of the XYL's, all helped out. From left to right is Marge Hadley, Carol Silva, Fern Hughes, Betty Brunner, Vernie Davis, that MIL again, Verna Frasl, Helen Perry,

A couple of the XYL's. On the left is Frances Ventur and on the right is Carol Silva. In the middle is one of the fellows in the club, but with all that pulchritude who cares what his name is.

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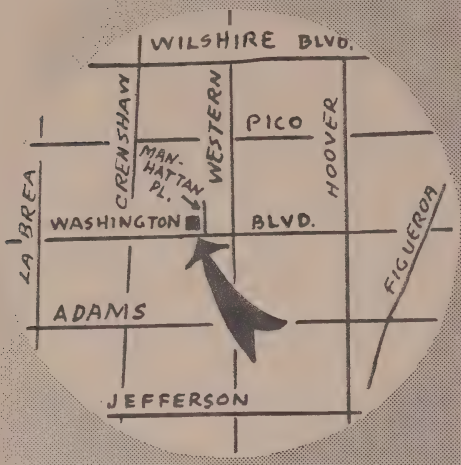

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JEAN Kincheloe K6OQD
6625 N. Brightview Dr.
Glendora, Calif.

Last month I put out the first of these columns. There hasn't been time for any of you gals and guys to send your suggestions and information. Once again, though, let me point out that this bit of writing will be no better than all of you make it by keeping me supplied with those newsy tid-bits. So let's have the mail box stuffed, huh? Also, how do you like the name of the column? Any sharp ideas? All suggestions and comments will be gratefully accepted.

I had a gay old time at the Los Angeles County Fair operating K6CPT 6, call of the Los Angeles County Sheriff's Departement Disaster Communications Service. Vada, W6CEE; Gladys, W6DXI; Pat, K6PFY, and Harryette, W6QGX gave a good deal of their time and their work was greatly appreciated. Most of our work was done on 2, 10, and 40 meters. We didn't dare use 15 meters as we came in loud and clear on the PA system of the fair. The OM's worked very hard putting up antennas and getting the rigs hooked up as well as doing a lot of operating. Sorry I didn't get a chance to talk to more of you from out there. The only YL visitor I saw was Violet, W6CBA, thanks for dropping by Vi. We had the opportunity to operate a wide variety of equipment and I was most impressed by Hallicrafter's HT-32. Anybody know where I can get one REAL cheap? It was my first experience on SSB and I'm bitten by the bug.

The YL nets seem to be back in full swing and I promised to give a listing of them. Here is all the information I have been able to gather so far.

Ironing Board Net_3.915mc Wed. 0900PST
40 Meter Round Table_7.255mc Fri. 1000 PST
20 Meter YL Net_14.240mc Thu 1100 PST
Cross Country Net_21.390mc Fri 1045 PST
Hair Pin Net___29.00mc Tue 1000 PST
L.A. 2 Meter Net_146.100mc Wed 1900 PST

I have purposely left out any listing of net controls because on some nets, the net control station changes from month to month and in some cases I just don't know, (hi) I hope to be able to check into 10, 15, 20 and 40 meter nets myself when I get the chance so I can get the opportunity to talk to more of you and pick up more news. So, remember, when I check in I will have my ears flapping!

The rest of the news this month is once again confined to the Southern California area. Rosemary, K6ACF, is home from the hospital after a bout with virus meningitis and is improving slowly. Hope you're soon back in A-1 shape, Rosemary. Maxinne, W6UHA, entertained the LAYLRC at the October meeting with pictures and interesting comments about her extended trip through Canada. The pictures were beautiful; I wish you could all have seen them. We all have itchy feet to tour Canada. I received a note from Mary, K6QPG from Honolulu. She says she will make a fast trip to California in November and will then go back to Honolulu and thence to join her husband on Wake Island. She doesn't know yet whether she will keep her call and work portable or use her OM's call KW6CQ. In any case I hope she has time to come to the LAYLRC meeting in November.

I am now in the process of gathering information on YL certificates offered by various YL clubs on the coast and hope to have this information for you all soon. Speaking of certificates, there is a WAS-YL, a WAC-YL and the YLCC; I wonder if anyone ever thought of a DXCC-YL? Do you think it would be possible?

Don't forget the YL Anniversary Party (Sorry OM's this one is for the gals only) Phone section, November 12 and 13; CW Section November 19 and 20. Rules will be in CQ and QST for November. I will be looking for you all and I promise not to hold you up trying to gather news, hi! 33, Jean

EDITORS LOG

Continued from page 4

6) If .005% crystals are used, no type certification is required.
7) Until further ruling is made, it appears that only FCC 1st and 2nd License holders may adjust and tune up the transmitters.
6) The feedline may not exceed 25 feet to the antenna.
9) You can not communicate directly with stations in the Amateur service except in an emergency, then OK to establish contact with any service except notify FCC in writing ASAP.
10) No restriction on use. OK for business or pleasure.
11) To get your license write or call nearest FCC office and ask for Citizens band application form.
12) Until notified otherwise, there are 22 channels available for class D radiotelephone and 6 for class C remote control.
13) Class C license holders must be over 12 years of age.
14) No license exam required for Class C or D licenses.
15) Store bought rigs available from International Crystals and perhaps others.
16) If you have more than one transmitter, post FCC form 452-C on each unit to avoid having to lug your license with you all the time.
17) FCC will not guarantee protection from interference on these bands what so ever.
16) Conelrad applies.

73 art, W61QJ

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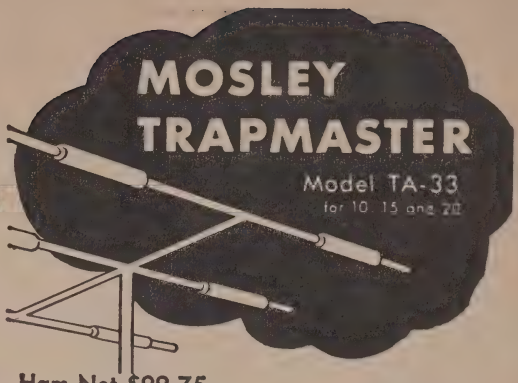

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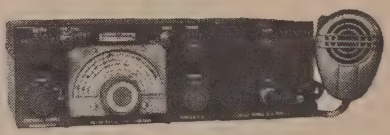

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AROUND THE BAY cont. from pg. 23

Yours' truly at the mike, pointing at who knows what, maybe a bird???

Bingo game in progress presided over by Betty Brunner.

More of the auction with Bill Paull, K6SWY spinning the cage. Looks as if Art Liska, W6IPY (upper right) has won something.

Bill Paull (left) giving? or taking? one of the prizes from one of the lucky winners.

QUAD STACKED ARRAY for 220mc

Continued from page 5

The folded dipole section of the driven element is constructed with No. 18 enameled copper wire, spaced ¾ of an inch from the driven element. ¾ inch ceramic standoff insulators were used to support the dipole at the feed points. About the easiest method of attaching the dipole to the driven element is by flattening the outer ½ inch of the tubing portion, and drill a hole ¼ inch in from the end for a 6/32 bolt. The No. 18 wire can be fastened either by wrapping it under the bolt, or by the use of soldering lugs. Be careful to scrape away the insulation thoroughly from the wire where it is desired to make an electrical contact.

The front to back ratio of the QUAD array is approximately 18db, with a measured SWR of 1.2 to 1 at the design frequency (221.000 megs).

The pattern of the QUAD STACKED array is something to behold but suffice it to say that a needle pinning signal can be dropped right down into the noise. Future plans call for an array using 16 of these 6 element yagis, and when it is completed and de-bugged, it will probably appear in a subsequent article.

The author would suggest feeding the beam with 300 ohm open wire line as the losses in Coaxial cable (assuming that you can't afford RG-17U) start to become appreciable at 200 megecycles. All soldered connections should be weather proofed to retard corrosion.

Thanks are extended to W60KR, who's help with both the design and testing of this array is greatly appreciated.

Credits: Notes on the Development of Long Yagis', Greenblum, Aug-Sept. 1956 QST.

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COAX SWITCH

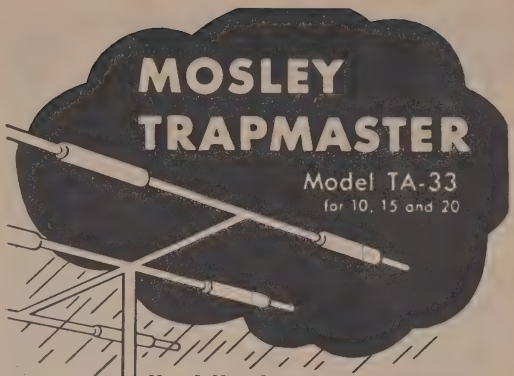
Continued from page 9

with .005mfd. disc capacitors to prevent unwanted interference pick up. The extra contact can be used to mute the receiver, start the transmitter power supply, or accomplish other functions.

An examination of the antenna contact on the relay will reveal a curled up armature. Although the relay works fine on ten meters, I suspect there might be too much inductance in the spiral armature for the six or two meter bands. The relay has enough power so that the spiral can be cut out and the armature soldered down to it's mounting post.

What to do with the r.f. thermocouple meter? For all practical purposes, it was free with the relay. With a little more careful thought, it could be included in the switching box and the meter mounted in some convenient remote location. This will give you a continuous indication of your transmitters' relative output.

☆ ☆



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'Checking solar powered radio which recently made voice contact with amateur radio operators in Illinois are San Fernando Valley radio hams James Wood, K6BXW, owner of Woody's Electronics (l) and Major Gilbert, K6LMW, Hoffman Labs Engineer (r) builder and designer of the set. Gilbert said the long distance phone contacts were the first established by a solar powered set.'

Does your XYL ever holler about the light bill? Not Anita, K6OAI, XYL of Major Gilbert, K6LMW, of Burbank, Calif. who has built what is perhaps the world's first solar-powered amateur radio station. Major, an electronics engineer with Hoffman Electronics, utilized a bank of 72 silicon solar cells, similar to those used in the Vanguard Satellite, to power both his homebrew transistor xmtr, and the converter-receiver, which are Regency units converted to solar power.

For his pioneer work in "solorized" transmitters, Gilbert picked the most difficult band to transistorize, the 10 meter band. Power output ranged from 60 to 75 milliwatts, on 28.82 Mc.

Contacts to date include Illinois, Texas, Missouri, Arkansas, Minnesota, Mississippi, Alabama and of course, California. Reports were all Q5, with signal strength ranging from 4½ to S9 plus 10 db.

His xmtr uses RCA 2N384 transistors and the modulator has RCA 2N109 transistors. Gilbert plans a band-switching rig as his next project, with, perhaps, solar-charged batteries to carry him over cloudy days and the evening hours.

ANOTHER SSB MOBILE

Continued from page 8

oscillator remains on the high side of the filter pas band. The lower sideband reaches the second mixer stage where inversion takes place and output is an upper sideband.

In position SB2, relay Ry2 closes and causes the oscillator to move to the lower side of the pass band. Thus, the upper side band appears at the grid of V9. On 40 meters, the sideband relationship is the reverse of that on 75 and 20 meters, due to the choice of mixing frequencies. In position AM, relay Ryl is again deenergized, but relay Ry3 operates and removes a short circuit from across the carrier control R10. The balanced modulator becomes unbalanced, depending on the setting of this potentiometer.

Two dynamotors supply voltage for the transmitter. In the AM position, both of the dynamotor starting relays become energized when the switch, S4, on the microphone is closed. This provides a ground for the relays through switch sections S2B and S2C. At the same time, Ry5 closes. This removes the cut off bias from V8 and V9, grounds potentiometer R15 which controls the output of the low frequency exciter section, and disconnects one side of the speaker voice coil from the receiver output transformer and substitues R51 in its place. The antenna relay Ry4 also operates. In positions SB1 and SB2, both dynamotor relays are energized when S4 is closed. Ry5 is now controlled by a foot switch. In a normal sideband contact, the dynamotors run continuously and transmit and receive are controlled by the foot switch.

The CAL positions are used to talk yourself on frequency before breaking into a round table. Positions CAL 1 and CAL 2 provide sidebands corresponding to positions SB1 and SB2. When S4 is closed, only the low voltage dynamotor operates. Ry 2 closes and connects R27 into the circuit. As the resistance of this potentiometer is reduced, the bias on V8 and V9 is reduced and, thus, the level of the signal heard in the receiver can be adjusted to match the received signals. Plenty of signal feeds through V11 to the antenna relay Ry4, where it transfers to the receiver through the wiring and relay capacitance.

Continued next month

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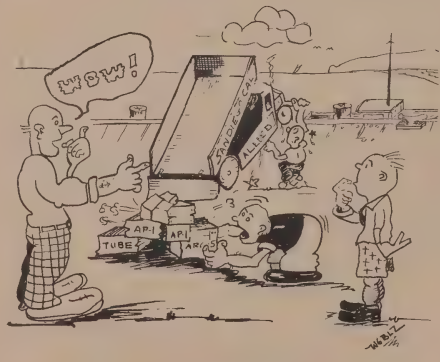

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ZERO BEAT cont. from page 21

we know of owning them.

W6KBT attended the Dana Point 2 meter breakfast and thought it was a flop. The cafe expected plenty of people to show up and help eat the ham and eggs. All that arrived were K6QJP, W6JF, and K6AQE and families. All had a good time and wondered where the other 200 were that said they were coming. The cafe must have felt like the [illegible] that had to stand at the door and keep smiling when the departing guests stands at the open screen door and lets the flies in. I notice Telrad has been undergoing a face lifting. They have rebuilt the store by putting neat looking cement blocks around the old building. Allied Surplus has moved into new quarters . OM Bryant has all the parts in nice pans throughout the store, all sorted out for you. If you haven't been in the store, do so and be surprised at all the items available locally on the surplus market. Down at Western Radio & TV a little bird told me Loren Lee was up getting a new license. A drivers license that is. K6BVV is going to Okinawa. Kit will be gone for 18 months, and his kw SSB rig up the street will be idle. He hopes Western Radio will hold his part time job open for him until he gets back. I guess we wont be QRM'ing each other for awhile anyhow, eh Kit? K6AM, Clayton Bullen is off to the Orient on a picture taking expedition He hopes to visit amateures at Tokyo Hong Kong, Thailand, Manila and Cambodia. No rig just a camera, he says he will be busy taking pictures of Angor Wat for future lecture tours. Clayton should be able to have some interesting lectures for some of the clubs around SD when he gets back.

Letter in the box from Les Slade of San Bruno, wants to know why QST doesn't run a novice page. As he sees the situation the novice becomes a lid where no guidance exists. Feels novices are like neglected children and need training and recreational programs. If ur interested his QRA is 652 Second St., San Bruno. The SD DX club kinda let us down on K6RXM Doug McGill going to Clipperton Island on the Spencer F. Baird. We woke up after it happened. How about that Doug? Thought you would give us a scoop, cw buddy and all.

Now before I sign off fellers, how about sending me some stuff to put in the magazine, about yourself or anyone. Pictures, snap shots or what have you? This is the SD area column lets make use of it or it might end up like the 11 meter band. How about it huh?

-AR-

SAN DIEGO'S CHOICE

Bob Hooper, W6YXU, 'Good Boy' you cleaned your plate and are now eligible for SW Div. ARRL Director. Through hard work the SD gang feel Bob will make a good man to represent the SW Div. at Hqs. He has been licensed since 1932, 43 years old family man, two daughters. What's more, he was chairman of the SW Div. Convention 1949-52, 1955-58 co-chairman which went over with a bang. More! 'Curly Hopper' was also ARRL vice director 1955-56 and asst SW Div director 1949-54, and 1957-58 also pres. SD Radio Club. If you go back further, he held calls W9JQV W3GBA and attended CREI, spent four years in the U.S. Navy and is now an electronic engineer U.S. Navy Electronics Lab with 21 years Federal service. Active? You bet, Amateur Advanced Class and on the air to listen to your troubles and represent you at Hqs. Write him, all letters answered. Vote for him!

SOMETHING NEW UNDER THE SUN

A new and DIFFERENT net is in the making! Many of our present day hams have a background of wire telegraphy, using the American Morse Code. They have worked on railroads, stock-broker circuits and press associations where our currently used International Morse (or 'Continental') code was never heard of!

For 'old-times' sake', if you want to put it that way, there are a number of us who would like to brush the rust out of our failing memory in good old Morse code and an ideal way to do it is to have a little private net circuit of our own...social only; NO traffic unless urgent!

FCC rules and regulations PERMIT the use of American Morse code, provided that the International, (or 'Continental') code is used for the call letters of the stations concerned.

As a nucleus, W7ZB, W7GVV and W7OE are about to 'get going' along these lines. We would most certainly like to hear from other of the old time 'Morse' men who would like to get in on this.

Any of you who would be interested in participation in such a 'net', write W7OE. We hope to come up with some ideas for using a relay with our receivers to repeat into a sounder, just like the 'good old days'. Maybe once a week for half an hour, at some time which will suit all concerned. Any one with any ideas along this line is welcome to comment and let's see if we can't get sumpin' going that will be NEW and DIFFERENT in ham net operation. You with us, ol' timer? "73"

"YB" W7OE

You fellers who live in a state which issues call letter license plates, and who want a call letter sign for some other purpose...on the rural mail box, door of the ham shack or similar application, how about taking a pair of tin snips and cutting off the irrelevant parts of LAST year's license plate? Leaves you a pretty good call letter sign for the shack or elsewhere, per example reproduced here. 73 "YB" W7OE

::::::::::::::::

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VHF REPORT

Continued from page 18

K5IQL worked W4IKK twice during the Perseids Shower, for some nice scatter work. And the band was open for Es, from New Mexico to W8, 9's, and 4's on the evening of the 17th, of September.

The 432 megacycle Antenna Measuring Contest was scheduled to take place October 5, in the Tilden Park area, above Berkeley-Oakland, California. Pictures and full information **should** appear in the November column.

VHF-UHF ARTICLES SCHEDULED TO APPEAR IN WRA:

Wth this month's article on a 24 element 220 megacycle array by Robert Grimm, K6RNQ, the VHF-UHF department begins a series of articles based for the most part on field research . . . research which has indicated to us just what types of articles the western VHF-UHF enthusiast would most like to see appear. Scheduled for early appearance are articles written by msrs. Grimm (K6RNQ) Fulton (K6BP), and Macdonald (W6CDT), covering such items as "A Bandswitching rig for 6, 2, and 220," "Doubling Yagi Antenna Efficiency with Phase Reversal Loops," "A 417A Converter for 220 Megs." "Anti-Clobber Converter for 50 megs," "The Ultimate in VHF-VFO Stability," and a series on outboard modifications to be made to your Communicator for 432 operation, while still retaining the two meter operation! Sound Interesting? This is just the beginning.

WHAT THIS COLUMN IS FOR;

During the summer months your editor was doing a good deal of traveling around the state of California and chalked up visits to over 40 club meetings, and picnic-hamfests. While traveling in the field, as it were, I met with many of you, and managed to glean enough information on a regular basis to keep the **VHF Record** column more than adequately filled. But alas, with the cooler months, my traveling must be greatly curtailed, and I fear that unless my mail box witness's a sudden increase in the amount of mail being received, the column will also be greatly curtailed.

What sort of information am I after? The best answer . . . what sort of information do you like to read about? This is the 50 megacycle DX season . . . OK . . . let me know who you are working, what frequency the rare DX is hanging out on, when they are coming through, dates and times of openings, and who everyone else is working. Now . . . let's get the ball rolling. Hup one two three four . . . march . . . to the typewriters!

SEPTEMBER ARRL VHF-UHF CONTEST:

Most of the earth shaking(?) events which occurred over the weekend of the 20th-21st of September were confined to the 220 and 432 bands. The latter band got special emphasis, with stations set up on every mountain top available, or so it seemed. Wayne, W6OHQ, hauled his 432 gear to Mt. Las-

sen, in the northern extremes of the state, and setting up camp by a sulpher mine, worked W6NTV, Turlock (190 miles, approx.), W6OJB Orangevale, W6MLN, and W6JOX/6 Mt. St. Helena. Wayne also heard W6EDC, CDT and K6ONM, all around 180-200 miles.

Operating from Blueridge lookout, W6-FZA/6 was on all bands, six through 432. On 432 A1 worked W6NTV (140 miles), K6AXN/6 Mt. Diablo (200 miles) and W6OJB (250 miles, approx.)

From Mt. Rose, Nevada, K6KFF/7 and W6GCG/7 had 6,2 and 220 gear along. Bob (KFF) mentions that the San Joaquin Valley was so hot on the 20th that until after 1 a.m. Sunday morning, they could not work anyone but other mountain top stations, also located above the heat inversion. Imagine being 10,800 feet above sea level with a line of sight path to the Bay Area (some 180 miles to the west) and yet not be able to work into such stations! On 220, the Nevada boys worked W6JOX/6 Mt. St. Helena (operated by W6JOX, W6BAZ, and crew) at 2 a.m. Sunday morning. K6GGV Mt. View heard W6GCG/7 briefly on 220, but not with a workable signal.

W6JOX/6 managed to work W6FZA/6 on 6, 2, 220 and 432, even though they were 240 miles apart.

On two meters W6RJE/6 Mt. Brackenridge (south of Bakersfield) was worked by W6CDT, San Francisco, for one of the better two meter paths covered.

W6SDW/6 Mt. Pinos worked four Nothern California stations on six meters, namely W6SUE (W6SUE, K6RNQ, K6UZK operating), W6AJF, W6JOX, and K6ERG (Carmichael).

To capsule the event, a good time was had by all, and it appears at this early writing that W6JOX/6 Mt. St. Helena will come away with Northern California honors, at least. What happened in Southern California? I think someone shot the pony express man between here and there . . . I haven't heard from smog basin in such a long time me thinks I had better take a trip down to see if anyone is still alive.

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FOR DIRECTOR, ELECT:

DR. HOWARD A. BOWMAN, W6QIR

Born in Los Angeles, 1910, and educated in Los Angeles City Schools and the University of Southern California (A.B., 1932; M. Sc., 1939, Ed. D., 1956). Employed in the LA. City Schools since 1938 and at present Director, Evaluation and Research Section.

First interest in radio in 1922, continuing until first ham ticket obtained in 1938. Advanced Class endorsement in 1946. Have operated both 'phone and cw., but principally the former. Have been on all bands, but mainly on 75,10 and 2 meter bands.

Was a charter member of the Inglewood Amateur Radio Club when organized in 1938 and have maintained continuous membership in that club and in ARRL since that year. Have served, at various times, as Treasurer, Secretary, Vice-President and President of the Inglewood Club. Held the Presidency three terms, longer than anyone else. Was one of the original organizers of the Los Angeles Area Council of Radio Clubs, and served as its Chairman for two terms. Served as treasurer and member of organization committee of Southwestern Division Convention held in Los Angeles. Served as member of WERS during war years and am member of RACES now. Have written extensively for Radio and CQ.

I do not believe that any prospective Director can predict the nature of the things upon which he will be called upon to act. Whoever is elected should be familiar with the feelings and opinions of his constituents and should be guided by these in casting his vote. Moreover, ARRL members voting for any candidate should recognize that whoever is elected must be trusted to use his best judgment and his knowledge of local conditions and desires to guide him in his actions.

PAPPY'S CHICKEN

Cont. from pg 20

under the trailer, roosting on the axle. Pappy's cherished freedom returned. Again he could stay out nights, too. It was Q-5 on the SB nets now that Pappy's chicken was old enough to care for herself not to mention rewarding him handsomely for the soft lullabys he had sung while she was young. She learned to come to the door and cackle for food at prearranged times.

Came the night when a disturbance awakened Pappy long enough to tell him a prowler was outside. The "all quiet" came so soon he thought nothing further of it and went back to sleep.

When Mrs. Hen failed to apply at the door for food at early handout time, Pappy went looking for her, fearing the worst. Instead of Mrs. Hen, he found a foot-print in the soft, moist earth that told the story too eloquently. The prowler had been a mountain lion.

Pappy is now petless . . . so any of you out there that have young animals looking for a home . . . remember W6BM.

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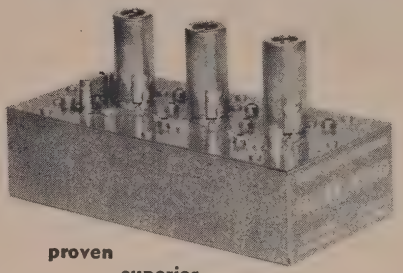

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Continued from page 22

out the coax at the end with as short a lead as possible and tune grid dip for dip on the antenna scope. As I said it should be at $2f_1$ or F_1. The formula is now:

$$VP = \frac{(Feet)(Freq.)}{492}$$

After recording the new VP, double the grid dip frequency and observe antenna scope for dip. Measure the new frequency (which should be $2f_1$) and insert in formula

$$VP = \frac{(Feet)(Freq.)}{(2)\ 492}$$

The coax is a full wave at this frequency. At 3 times F_1 the coax will be 3 half waves long and the new formula will be:

$$VP = \frac{(Feet)(Freq.)}{(3)\ 492}$$

At 4 times F_1 the formula will be:

$$VP = \frac{(Feet)\ (Freq.)}{(4)\ (492)}$$

On my antenna scope I installed a female coax jack for coax instead of the binding posts. The Heathkit equipment works fine for this test as no values of frequency or impedance are measured on it. The measurements are extremely critical, yet they can be executed with extreme accuracy.

The repeatability I have been able to get is surprising. My measurements have found the VP to start at for example .655 and rise to .669 and .67 at the higher frequencies. It moves from one coax to another, but each coax' VP is consistant from day to day unless moisture has got into the coax. Open wire line can be checked also but it must be suspended off the ground in the clear.

The VF may not be too important to you; however, a resonant length may be. I plan a future article on this and other measurements with the antenna scope and grid dip, a complete step-by-step for gamma matches, using the antenna scope as a field strength meter, how to grid dip feedlines, etc.

-AR-

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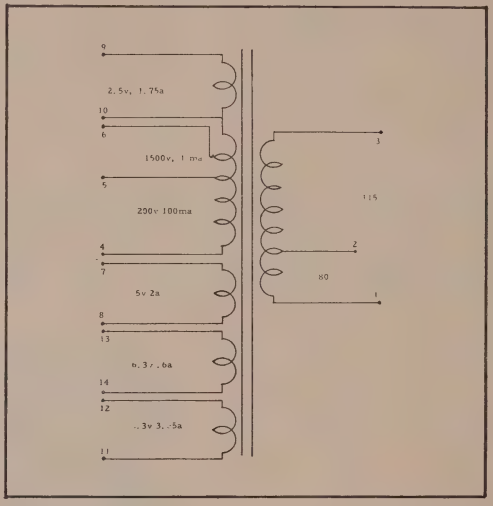

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DX REPORT

Continued from page 12

in Dar-es-Salaam.

KH6MG ZK1 has appeared on cw 14057 knocking off QSO's in contest style. QTH Danger Island. Will be active until October 12th.

Last Minute News

PYØNA (PY1CK), PYØNB (PY2CK), PYØNC (PY7AN), PYØND (PY1HQ), and PYØNF (PY1BIG) plan Trinidade Island operation in late October or early November, all bands cw, am and ssb. Later PY1CK and PY1BIG will spend a week on Fernando da Noronha.

W3KA advises he will operate as KS4AZ, Swan Island, from September 26th to October 4th. Danny, VP2AY should be on from either Dominica or Montserrat about October 15th. Extended stay at Antigua was due to extensive boat overhaul, caulking, painting etc.

VP8 LOCATIONS (Courtesy W4KVX DX Bulletin) and Callbook W9TRD

All VP8 cards may be sent to: Director of Posts and Telegraphs, G.P.O. Port Stanley, Falklond Islands.

Base 'A' Port Lockroy
Base 'B' Deception Island
Base 'D' Hope Bay
Base 'E' Stonington Island
Base 'F' Argentine Island
Base 'G' Admiralty Bay
Base 'H' Signy Island
Base 'J' Loubet Coast
Base 'O' Danco Coast
Base 'P' Livingston Island
Base 'W' Graham Coast
Base 'Y' Horseshoe Island

Falkland Islands: VP8AB, VP8AC, VP8AH, VP8AI, VP8AQ, VP8AS, VP8BC, VP8BJ VP VP8BN, VPCV, VP8CW, VP8CX, VP8DC VP8 DD, VP8DE, VP8DF.

South Georgia Island: VP8AR, VP8AY, VP 8BC, VP8CA, VP8CB.

South Orkney Island: VP8DA.

South Sheetland Island: VP8CQ, VP8CT, VP 8CZ, VP8DB.

Grahamland (Antartica) VP8CC, VP8CD, VP 8CG, VP8CH, VP8GI, VP8CJ, VP8CO. VP8CR

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Aerovox .005 2500v 6.8 amp ..... ea .25
Faradon UC2309 mica .004 3000vac, 6000vdc ea .25
W. E. D162034 .03x.03 1500vdc ..... ea .25

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.5mfd 25,000v oil Aerovox 25020 & Wstinghse FP ..... ea 20.00
.08 1500v DC oil bathtub ..... ea .10
.01 5000v oil Aerovox type 12 ..... ea .65
.5 1000v Pyranol 23F159. & Aerovox JP 1016MCT ..... ea .25
.1-.1 4500v G,E, Pyranol No. 25F786 ..... ea .25
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Sprague motor capacitor 400-450mfd 110vac 60cy No. NT483950 ..... ea 1.00
Motor capacitor 130-157mfd 110v 60cy K5826959-AA3 ..... ea .50
20 to 100 watt resistors, your choice ..... ea .25
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Wire wound pots. 4 watt 2500 ohm to 75,000 ohm ..... ea .35
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VARIABLE CONDENSERS

180mmf tank variable double spaced ..... .75
82mmf variable double space ..... .50
20-125 mmf Ceramicon trimmer. same as type 823CRL ..... .25

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Frank Quement, Inc., San Jose
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Television & Radio Supply, San Francisco
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Kaimuki Radio Co., Honolulu
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C & G Radio Supply, Tacoma
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Notice of Northern California Sales and Promotion Office

WESTERN RADIO AMATEUR EXPANDS

Western amateur radio is expanding, and growing, in case you have to be told. And growing right along with it, stride for stride, is Western Radio Amateur.

Evidence of this fact is to be found in the new Northern California Sales and Promotion Office, for WRA, at 151 West Reed, San Jose, California. Officially, it is hoped that the establishment of a Northern California office will bring closer working relations between current, and prospective advertisers in the area bounded on the south by Santa Barbara, and on the north by the Oregon border. With a magazine representive in this area, personal help is also offered to readers, in the preparation of press releases of local amateur activities, edification of prospective articles, and the fastest possible action in placing information for the various column editors in the correct hands.

Club announcements, net news, ham fest dates, and all information not handled on a regular basis in an established column will find ready and eager acceptance at 151 West Reed, San Jose, Calif. Additionally, all VHF-UHF Column material will come to the San Jose office.

Oh yes, the San Jose office has been open since September 15, and is manned by Bob Cooper, K6EDX, our associate editor. WELCOME Northern California Advertisers.

OAKLAND

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Electronic Components and Complete Units in Quantity

PN-12A Power Supply. Pri. 230 vac 60cy. Secondary 480v, and 960v 250ma. Rack mounting panelled, real FB. A bargain at only ..... $12.50 ea.

DM 34 Dynamotor. 12v input, 220v 80ma out. Bargain $3.95

Audio Attenuators - Bridged T pad, 500 ohm input and output. Amazing dual pot bargain, FB for Hi-Fi. Only ..... 65c ea.

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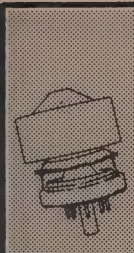

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110v ac power supply for BC-604 & 683. No conversion needed, just plugs in. Wired 11.95
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BC-604 Xmtr. complete w/tubes & xfmr. 5.95
BC-684 Xmtr. 27-38.9mc 6.95

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BC-684 Xmtr 27-38.8mc w/tubes & Xfmr 4.95

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P-435/VRC-2X FM mobile receiver. 24 volt. easily converted to 12 or 110v. 30-40mc, good con. 19.95

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T-22 Xmtr. 7 to 9 mc 5.95
MD-7 Plate Modulators 8.95
All units in excellent condition. We have a huge selection of ARC-5 Command Equipment, check with us for your needs.

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RM-53 Remote Control unit. Xlnt for phone patch. Brand new ..... $3.95 ea. or 2 for $7.00
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3BPI- $.89
5LPI- $1.39

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10hy, 200 ma $.96
6hy, 150 ma. Collins
$.96

COLLINS SWINGING CHOKE
4-12hy, 300 ma $2.98 ea.
2 for $5.00

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35.5 ft. with connectors
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FOR HIGHEST QUALITY QSL's, call or write Duke, K6GJU, 10422 Townley, Whittier. OX 5-1274. Kromcote, Multicolor, special cuts our specialty.

WANTED: Old radio and wireless sets and parts. 1928 or before. Crystal detectors, crystal sets, tubes, tuning units, parts, old battery receivers catalogues, magazines, books. All letters answered. Will pay cash or trade. Harold S. Greenwood, 2341 Ivyland Ave. Arcadia, Calif. DOuglas 7-7217.

QSL's Newest Designs glossy stock 2 colors 100 for $2.50. Free sample Brochure. One week service. Box 671, Hawthorne, Calif.

HANDLING TRAFFIC? Two bucks brings you the Pacific Area Net News for one year. Vic Gish, W7FIX, 511 East 71st. Street Seattle 15, Washington.

FOR SALE: Shure mike CB-12-D $8. Thordarson transformer (type T 19 P54 1120 vct) $6. Electricians fast calculator $4. Weston tube checker (model 685-2) $20. Miller radio interference filter (No. 7820) $15. Ohmite SRC-100 $5. Electronic photosound course (code volume II) $8. Protelgram model 170B (miniaturized high voltage supply unit, N. Amer. Phillips Co.) $25. San Gabriel AT 7-7510.

1 K.W. SSB rig thru 80 M. 20A exciter, builtin VFO, 150W G.G. buffer, parallel RK65's in final, built in scope, ant. relay, Pi section output in both buffer and final. All in a 34 inch Bud cabinet. Separate 110/220 remote control power supply adjustable from 1200 to over 4000 VDC at 500 ma. using 866A's or 800 ma using 872's. Plus an adjustable buffer supply of 500 to 1000 VDC at 300 ma. Owner W6DSX moving to small quarters in Northern Calif. Will sacrifice for $375. or will trade plus cash for compact 100-150 W rig such as 32V, HT32, etc. Phone Tom, K6KFI, ELgin 5-6340, Sierra Madre, Calif.

MUST SELL: HT 32 Hallicrafters SSB transmitter used 2 months. Excellent shape and working order. Will go at a low price. Stancor 203A mobile transmitter with VFO 10 meters. Uses 2E26 or 6146 final. Compact with lots of parts. FRontier 4-2533, evenings. W6WMB Stan Anstett, 344 31st. St. Hermosa Beach, Calif.

Hy-Gain 3 element Tri-Band beam and special Donner 60 ft. tower with platform with guy rings. Insulated guy wires with large turnbuckles and snap hooks, all top quality. Sacrifice $125. Phone Bill Taylor, W6QHQ, SYcamore 6-1285. Pasadena, Calif.

WANTED: ICA black plug in coil forms 5 and 6 prong. If you know of any store having them write W6BLZ, 528 Colima St. La Jolla, Calif.

STRIKING! NEW! SCENIC QSL's. Sample 10¢, refundable. Camas Press, 3005-VC, North Hollywood, Calif.

FOR SALE: 75A4 almost new, used very little. $550. Has had factory checkup within guaranteed time. W6PNJ, R.S. Dewire, 21 Palmetta Dr., Alhambra, Calif. AT 2-3711.

Attractive young movie actress with good equipment desires someone to teach code and theory. Requires three days per week, one hour per day. Salary 9,000 per year, board, room and expenses. Must be free to travel as social companion 300SL supplied. Applications must be accompanied by new or renewal subscription to Western Radio Amateur. Write Box 1, 10517 Haverly St. El Monte, Calif.

FOR SALE: Hammarlund Super-Pro SP200 receiver. Freq. range 1.25mc to 40mc. With cabinet. Both in very clean condition. Power supply for 110 or 220 vac. Manuals included. A steal for $85. Dick Reimer W6OSU, 7811 Agnew Ave. L.A. 45, OR 2-2970.

FOR SALE: Never used PE103 dynamotor with cables and extra brushes $20. D.W. Nign, ELgin 5-7701, 431 Crestvale Dr., Sierra Madre, Calif.

Unused Elmac AF-67 with built-in change over relay. $145. Unused Elmac PMR-7 receiver $130. If purchased together will include Birch console built for them, with speaker and mike. New Master Mobile all-band whip, coil and mount. $20. K6CTN, phone WIndsor 7-2820 or write, 38533 31st. St. East, Palmdale, Calif.

FOR SALE: 10 years QST's 1947 to 1957. 60¢ a year, also 3 QST heavy binders $1.50 apiece. Fred Vaughn, 2673 Alder. Eugene, Oregon.

TRADE: Mobile rig for DX100 or Gonset Commander II super 6 converter all band coil. PE103 whip-base SX25. 522 E. Raliegh. Phone CI 6-2644.

FOR SALE: Gonset Super 6 converter $35. Gonset G66 and 3 way power supply $165. Elmac AF67 $120. Hallicrafters S38C receiver $30. Gonset 20 meter bantam $20. Deane M. Ames, K6UIN. STate 4-4278.

FOR SALE: 120 watt phone rig, home brew-bandswitching, ready to go, VFO $90. We are dealers for Hammarlund, Master Mobile, Johnson, Hi-Gain, Black Widow & Transcon. Liberal trades, convenient terms. See us for those hard-to-get items. Downey Electronics, 8802 E. Imperial (near Lakewood) Downey, Calif.

FOR SALE: LM and BC-221 frequency meters with calibration book and power supply CKB-2104 while they last. $35. C & C Sales, Box 46B2 Bay Shore Station Oakland, Calif.

SELL OR SWAP: Band switching table top linear 80-10 meters uses 4X150A in grounded grid and 4 of type 866 rectifiers, built in power supply uses HV time delay, has coax input, pi-net output, simultaneous metering of plate voltage and mils. Spare 4X150. Commercial quality throughout. No surplus parts used. Heath grid dipper, VTVM, multi meter, Simpson volt-ohm meter, VM hi fi phonograph. Many misc. receiving and transmitting tubes and parts. Model radio control receivers and transmitters. Want mobile and six meter gear, good communications receiver and portable typewriter, 6105 Piedmont Ave. Los Angeles 42, Calif. CLinton 5-4506.

FOR SALE: 2 meter Gonset III, only 3 months old. $200. K6SWD. Call SYcamore 3-6897, DUnkirk 2-6203.

FOR SALE: NC-300, 1 yr old, mint condition, $275. Will consider trade. Also for sale RDP Pan adapter 5 inch CRT 10mc sweep length variable down to 0-mc, 30 mc input excellent for VHF. $50. William Cronkhite, 1718 Grevelia St. So. Pasadena, Calif. SY 9-1076.

FOR SALE: B&W 5100 $285. Hi-fi FM 3A tuner with AFC $30. A7E amp and pre amp $25. 3 speakers, walnut enclosure $50. CL 6-1577, W6PRB, 4210 Wawona, L.A. 65.

FOR SALE: Hallicrafters SX-99 receiver, good condition I year old $100. John Evers, 124 N. Whittier Ave., Whittier, Calif. OX 4-4148.

I inherited a lot of meters will sell 50 cents and up. Send 10 cents for complete listing and price. Collins Autotune transmitter 813 final plate modulated with power supply in 7 foot rack $175. you pay the frieght. W6IQY 908 Archer St., San Diego 9, Calif.

PMR-7 like new, AF-67 A-1 shape, James vibrator supply. Bob Raidy K6YUV, 148 Gavanola, San Bernardino. TUrner 6-3555

FOR SALE: Complete 6 meter station. 200 watts includes 2 power supplies, 1 final, 1 modulator, 2 crystal converters, 1 5 element Hy-Gain beam, 12 crystals, 1 mobile halo, 1 Leece Neville 100 amp 6 volt alternator, 1 dynamotor 600v 375ma. Rig can be used mobile or fixed. Wired for push to talk. $195 takes all. Also have other items. K6DCY. 4415 Heathdale, Covina.

Crystals for 2, 6 and 40 meters. 25¢ each. Other electronic parts. Send for list, W6IMC, 210 Alden Road, Hayward, Calif.

FOR SALE: SSB Exciter Central Electronics, VFO, coils QT unit, tuning eye. $150. W6BLZ, 528 Colima St., La Jolla, Calif.

SOUTHWESTERN DIVISION ARRL: Have you voted? Whatever your preference, shell out 4¢ and VOTE! 73 Ray E. Meyers, W6MLZ for Director; Virgil Talbott, W6GTE for Vice-Director.

FOR SALE: KW xmtr, 32V-1 exciter, separate power supply for modulator & final, 450-TLs PP final, 450-TLs modulator. See to appreciate. Also Knight communications rcvr, NC 98, B&W TR switch, new master mechanic 1000-1200 watts ac generator. Make offer. Call Les at CItrus 2-5339, 832 East GlenOaks, Glendale.

FOR SALE: Globescout Transmitter 40A. Excellent condition $60. Clyne, W6WPH, 1272 20th. San Pedro Fone TErminal 1-2745.

TUBES FOR SALE: 4X150A $13.50, 803 $1.95, Sockets for 4X150A $7.50. JSH Electronics, 1108 Venice Blvd., Los Angeles, Calif. RIchmond 9-7644.

FOR SALE: AF-67 mobile transmitter excellent condition with 12v dynamotor supply, dynamic mike, power cables, coax relay, whip and all band loading coil. Need money for college. K6YTC, Pasadena. SYcamore 4-7046.

FOR SALE: Elmac AF-67 xmtr. Mobile or exciter, 60 watt AM-FM-CW with mike, manual, whip and all-band coil. $129. Dynamotor, never used, 14v in 375 @ 150 $3.25. Good T-17D mike $3. R. Merrick 267½ Margaret, L.A. 22, PArkview 8-2306.

FOR SALE: Morrow 3BR5 converter $15. Pentron 2 speed tape deck, new $30. 6M-5763 mobile transmitter 12v $15. 30 watt transistor modulator and speech amp. $30. 829B mobile R.F. section $20. Triplett #1696A modulation monitor like new $25. K6LKP, eves. EM 7-7659.

COLLINS KW-1: Deluxe AM-CW kilowatt. Excellent condition. $2450. Will not ship. Possibly accept in part payment a commercial appearing home brew tetrode kw amplifierand power supplies. Bab Dick, W6OBF, 1633 Mandeville Canyon Rd. Los Angeles 49, Calif. GR 2-3921.

FOR SALE: DX-100 equipped with differential keyer, antenna relay, 1200 uufd variable load condenser. VFO turns off when using xtal. An exceptional buy at $185. W6GMC, EL 8-0831.

FOR SALE: Globe Champion 300A, $300. A complete Morrow MB560, MBR5 receiver with power supplies, fixed and mobile. Microphone, antennas, everything $400. M.C. Mandella, K6RIH, 9633 Abbotsford Rd. Rivera, Calif. OXford 5-6700.

Free service to builders of beer can verticals. Your beer cans emptied by crew of experts. No job too large or small. Send can, case, or carload to K6YTC, Rob. Arge. 333 Georgian Rd. Pasadena 3, Calif.

650w rig rack/panel, all stages metered. 813's, 838's, 872's, 866's. Modulator and speech amplifier incomplete. Xtal controlled. All high class components. Sacrifice $350. Cash/carry. Will swap for complete mobile rig. Contact Vore, K6YNY, SYcamore 2-6420, evenings, weekends.

WANTED: 10 volt, 15 amp. low capacity, 110-120 volt, 60 cycle filament transformer; TV field strength meter. Also diagram and information on a grounded grid linear amplifier, using 803's, pi-network, 1500 volts, to be driven by a Viking 2. Frank W. Jones, Gabbs, Nev.

FOR SALE: S-85 receiver, new condition with attached Heath Q-Multiplier. $90. P. Merrick, K6JCS, PArkview 1-1759.

DIAGRAMS for Surplus Electronics. Stamp for list. Alvaradio P.O. Box 151, North Hollywood, Calif.

FOR SALE: Heathkit Q-Multiplier, with manual $8. Also have photo equipment, (including enlarger, and other darkroom equipment), will trade for: DX35, Adventurer, Globe Chief 90, ect. All letters answered. Dell Keene, K6EOK, 1853 E. Gage Ave. Los Angeles 1, Calif.

FOR SALE: 51SB B&W SSB generator $50. Knight VFO unopened brand new $25. 12v lightweight beam rotator $2.50, Box 6" feed line spreaders, make offer; several variable cond for high power (500w to 1kw) 60% off list; 2 el 20 mtr beam $15. W6GMC, EL 8-0831.

SELL: SX42 receiver with tilt base. Tuning range .54 to 108 mc. Excellent appearance, one small scratch on top of cabinet. $145. Hallicrafters R-42 bass reflex speaker $25. Everette Hawkins, KØJAO, Box 157, Syracuse, Nebraska.

COAXIAL CABLE: New surplus, RG-54A-U, 58 ohms impedance, 30 ft. prepaid $1. W5YNL, 3113 No. Columbia, Plainview, Texas.

BARGAIN: Excellent condition. Factory wired Viking Ranger with push to talk, $175. HQ-140-X, with xtal calibrator, $175. Gonset super six, never used, with noise limiter, $40. Everything including Mosley Beam, Electrovoice 950A mike and balum coils for only $400. Call John Thompson at SY 2-7478 or RI 8-8593. Leave message if not in.

FOR SALE: HQ-129X with spkr in excellent condition and appearance. $125. will buy this one owner receiver. Call STate 6-0159, K6QDI, 13114 Blythe St. No. Hollywood, Calif.

FOR SALE: Master Mobile extra heavy duty mount, with 36 inch base, 60 inch whip and loading coils from 75 to 15 $35. Viking II with Viking VFO and keyer excellent condition $200. NC-125 with speaker excellent condition $95. Elmac PMR-7 receiver with 6 volt DC power supply $75. Phone ED 2-9465. Call after 5 P.M.

WANTED: Command set, broadcast band, receivers (550-1500kc) Advise price and condition. A.L. Oliveira, W1PWL. 94 Potomska St., New Bedford, Mass.

DX-100, excellent condition. Spare tubes, $160. 6148 San Vicente, L.A. WEbster 8-4003.

Patronize Our Advertisers

FOR SALE OR TRADE: Master mount, 75 (special) coil, handset, (butterfly), headset, (Boom), CQ's & QST's, have list. All stuff new, or as new. Robert Fernandes, 1027 Gould, Santa Clara, Calif.

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CARTER DYNAMOTORS

Model VFS and VFS 630. 5.5 volts DC input; 600 volts at 300 ma output
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—oOo—

Model 624 VS 5.7 volts DC Input
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(These two items can be combined for an even better price! Hurry!)

UNITED RADIO SUPPLY, Inc.

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SPECIAL NOTICE

From the date-line on the cover, you may wonder what's going on. We have had unforseen difficulties with our printing equipment, which has made it impossible to get the October issue out out on time. To offset this, we are combining the October and November issues

Subscriptions will be automatically extended to compensate for this. Your patience and understanding in this will be greatly appreciated.

73, es Tnx Don W6JRE, Publisher

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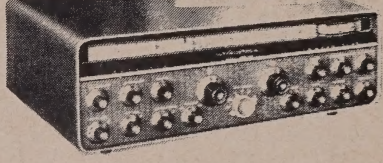
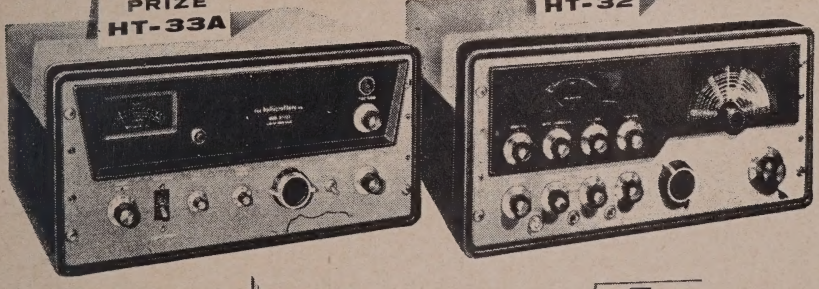
1st PRIZE FPM-200



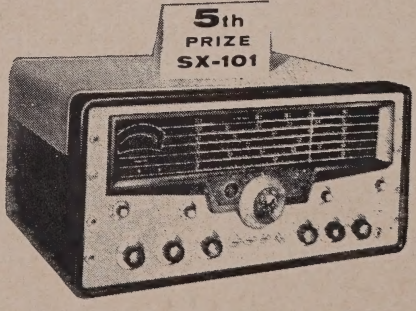
2nd PRIZE HT-33A

3rd PRIZE HT-32



4th PRIZE SR-34

5th PRIZE SX-101



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MODEL 14-AV The Model 14-AV is only 21 feet high and weighs just 13 pounds. It incorporates the exclusive Hy-Gain capacity hat assembly which increases the electrical length of the maintaining high efficiency on 40 meters.

the Self Supporting **14-AV**

$27.95

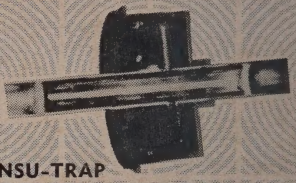
Model LC-80 loading coil adds 80 meter operation to the 14-AV Vertical. Only $2.00 Ham Net.

Combination mast and radial roof mounting kit complete with hardware, $9.95 Ham Net.

MULTI-BAND OPERATION

Completely factory pretuned with no further adjustments necessary these Hy-Gain Multiband Trap Verticals maintain an SWR of 2 to 1 or less across the entirety of each band for which they are designed. (52 ohm coaxial feed line). True ¼ wave marconi resonance on each band makes possible low angle DX radiation pattern.

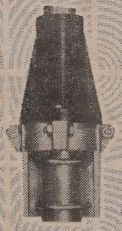
for 6*, 10, 15, 20 & 40 M



INSU-TRAP

Acting as an insulator at resonant frequencies but allowing radio energies of other frequencies to pass freely the Hy-Gain Insu-Trap becomes an automatic electronic switch which isolates various sections of the vertical to make it the proper length for each band. Hy-Gain Traps use exclusive adjustable capacitor plates and are individually factory resonated maintaining a high degree of efficiency. Each trap is completely weatherproof and air tight. No water or condensation can ever enter. Enclosed in carbon activated polyethylene cover and cap assembly the Hy-Gain Insu-Trap is rated to take the full maximum legal input power. Traps are only 2x3", weighing just 8 oz. each.

NYLON BASE MOUNT



Fiber Glass impregnated nylon base assembly makes possible self support. Heavy cast aluminum mounting bracket is adjustable for various sizes of mast. Weatherproof internal coaxial fitting supplied.

*Available as an accessory, the specially designed decoupling stub adds 6 meter operation with low SWR to Models 12 or 14-AV.

Order Model 6MK, $4.95 Ham Net.

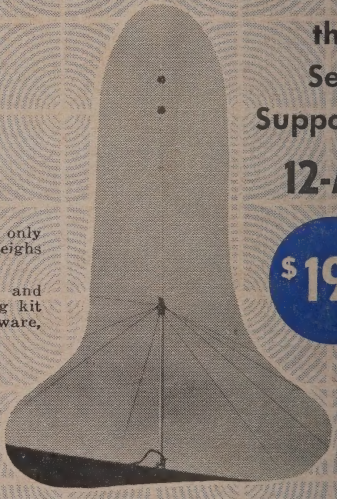
MODEL 12-AV

The Model 12-AV is only 13.5 feet high and weighs just 12 pounds.

Combination mast and radial roof mounting kit complete with hardware, $8.95 Ham Net.

the Self Supporting **12-AV**

$19.95



for 6*, 10, 15 & 20 M

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